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=> fil reg
FILE 'REGISTRY' ENTERED AT 15:36:33 ON 15 SEP 2006

=> d his

     FILE 'HCAPLUS' ENTERED AT 14:05:55 ON 15 SEP 2006
                  E JP2002-359224/PRN,AP,PN
L1                1 S E3
                    SEL RN

     FILE 'REGISTRY' ENTERED AT 14:06:39 ON 15 SEP 2006
L2               11 S E1-E11
L3                  STR
L4                0 S L3
L5                  STR L3
L6                0 S L5
L7                  STR L5
L8                0 S L7
L9                  SCR 1098
L10               0 S L7 AND L9
L11                 STR L7
L12               1 S L11 AND L9
L13               1 S 78435-18-4/RN
L14               1 S 709031-65-2/RN

     FILE 'HCAPLUS' ENTERED AT 14:23:17 ON 15 SEP 2006
L15               1 S L14

     FILE 'REGISTRY' ENTERED AT 14:24:01 ON 15 SEP 2006
L16                 STR
L17                 STR
L18              38 S L16 AND L17 AND L9
L19                 STR
L20              15 S (L16 AND L17) NOT L19 AND L9
L21                 SCR 1918
L22                 STR L19
L23               6 S (L16 AND L17) NOT L22 AND L9 NOT L21
L24               1 S L11
L25                 STR
L26               6 S L25 AND L17 AND L9
L27            2324 S L25 AND L17 AND L9 FUL
L28               4 S L27 AND L2
                    SAV L27 NWA060/A
L29               1 S L11 SAM  SUB=L27
L30              14 S L11 FUL  SUB=L27
L31               4 S L30 AND L2
                    SAV L30 NWA060A/A

     FILE 'HCAPLUS' ENTERED AT 15:29:24 ON 15 SEP 2006
L32               6 S L30

     FILE 'MARPAT' ENTERED AT 15:29:38 ON 15 SEP 2006
L33               4 S L30
L34             212 S L30 FUL


     FILE 'REGISTRY' ENTERED AT 15:32:26 ON 15 SEP 2006
L35               2 S L3 SAM  SUB=L27
L36              46 S L3 FUL  SUB=L27
L37              38 S L36 NOT L30
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SAV L36 NWA060B/A

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L38 8 S L37

=> d que l32
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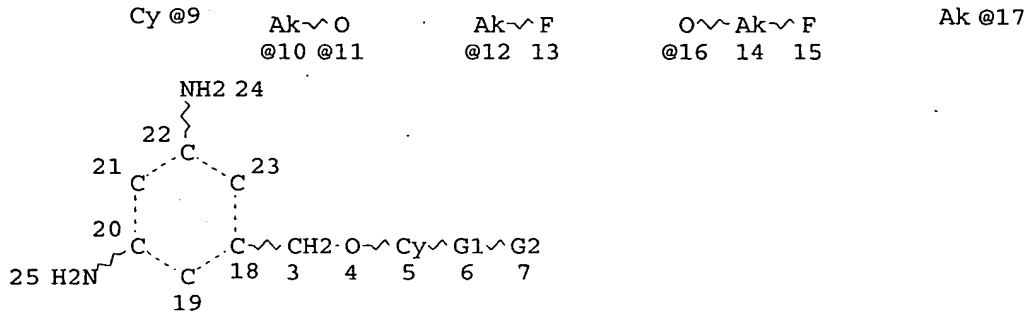
L11 STR



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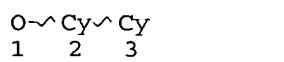
GGCAT IS MCY AT 9
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
L17 STR



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STEREO ATTRIBUTES: NONE
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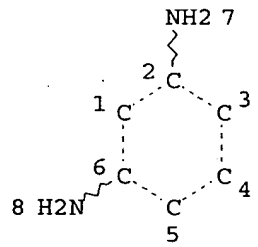

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NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE
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L30 14 SEA FILE=REGISTRY SUB=L27 SSS FUL L11
L32 6 SEA FILE=HCAPLUS ABB=ON L30

=> fil hcap
FILE 'HCAPLUS' ENTERED AT 15:36:53 ON 15 SEP 2006

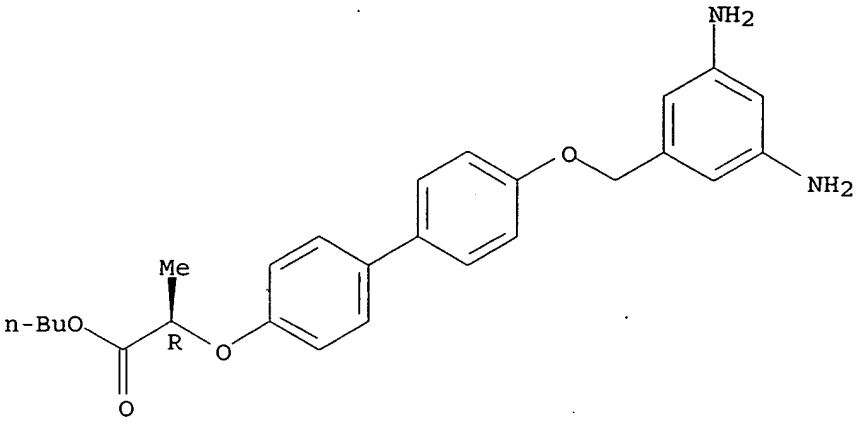
=> d l32 1-6 ibib abs hitstr hitind

L32 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:48551 HCAPLUS
DOCUMENT NUMBER: 144:139035
TITLE: Optically active phenylenediamines, and their polyimides or polyimide precursors
INVENTOR(S): Sahade, Daniel Antonio; Oda, Takuo
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006016303	A2	20060119	JP 2004-187213	2004 0625
PRIORITY APPLN. INFO.:			JP 2004-164336 A	2004 0602

AB The phenylenediamines are PX1X2OG or PX1(CH2)nOX2OG [P = diaminophenyl; X1 = O, CH2O, CO2; X2 = phenylene, diphenylene; G = (R)- or (S)-X3C*HX6X4X5; * = chiral point; X3 = single bond, CH2; x4 = CH2, CO2; X5 = C1-10 alkyl; X6 = CF3, Me; n = 1-10]. The polyimides or polyimide precursors bearing optically active groups on side chains are useful for liquid crystal alignment films for displays.
IT **873691-16-8P**
(optically active phenylenediamines for polyimides or polyimide precursors for liquid crystal alignment films)
RN 873691-16-8 HCAPLUS
CN Propanoic acid, 2-[[4'-[(3,5-diaminophenyl)methoxy][1,1'-biphenyl]-4-yl]oxy]-, butyl ester, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

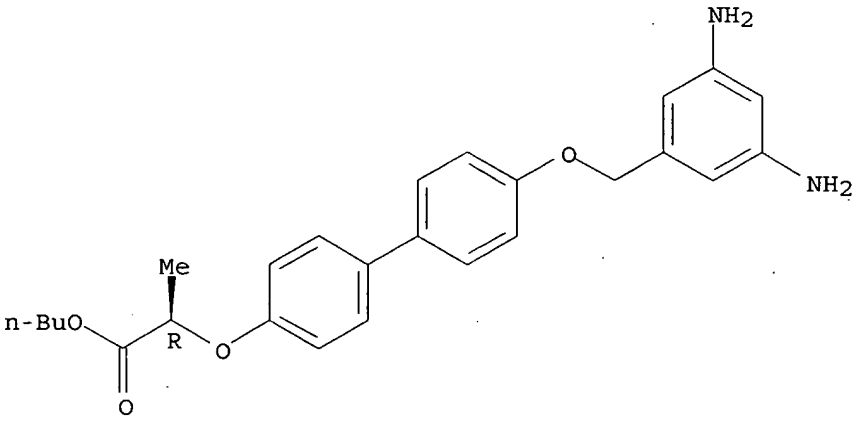


IT **873691-26-0P**
(optically active phenylenediamines for polyimides or polyimide precursors for liquid crystal alignment films)
RN 873691-26-0 HCAPLUS
CN Propanoic acid, 2-[[4'-[(3,5-diaminophenyl)methoxy][1,1'-biphenyl]-4-yl]oxy]-, butyl ester, (2R)-, polymer with tetrahydrocyclobuta[1,2-c:3,4-c']difurantetrone (9CI) (CA INDEX NAME)

CM 1

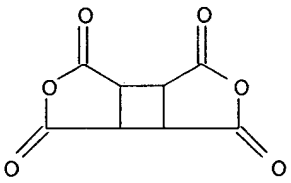
CRN 873691-16-8
CMF C26 H30 N2 O4

Absolute stereochemistry.



CM 2

CRN 4415-87-6
CMF C8 H4 O6



CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25, 35, 38

IT 34451-19-9P 122164-06-1P 873303-97-0P 873691-14-6P
873691-15-7P **873691-16-8P** 873691-17-9P 873691-18-0P
873691-19-1P 873691-20-4P 873691-21-5P 873691-22-6P
873691-23-7P 873691-24-8P
(optically active phenylenediamines for polyimides or polyimide precursors for liquid crystal alignment films)

IT 873303-98-1P 873691-25-9P **873691-26-0P** 873691-27-1P
873691-28-2P 873691-29-3P 873691-30-6P 873691-31-7P
873691-32-8P
(optically active phenylenediamines for polyimides or polyimide precursors for liquid crystal alignment films)

L32 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:996247 HCAPLUS
DOCUMENT NUMBER: 141:429761
TITLE: Alignment agent for liquid crystal
INVENTOR(S): Taki, Hirotsugu; Saito, Tetsuya
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004099289	A1	20041118	WO 2004-JP6275	2004 0430
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1784452	A	20060607	CN 2004-80012064	2004 0430

PRIORITY APPLN. INFO.: JP 2003-129091 A 2003

AB An alignment agent for a liquid crystal which contains one or more polymers for forming an alignment film for a liquid crystal, characterized in that at least one of the polymers is a polymer which has an alkylene group having 4 to 16 carbon atoms in the main chain thereof and has a side chain having a function to enhance the pretilt angle of the liquid crystal. The alignment agent for a liquid crystal can provide an alignment film which allows the achievement of a high and thermally stable crystal orientation and pretilt angle without the reliance on a process, such as rubbing and cleaning by an organic solvent.

IT **796853-43-5P**
(polyimide alignment agent for liquid crystal display element)

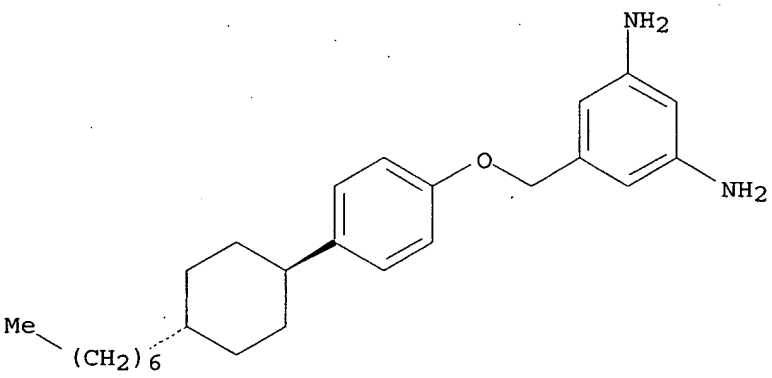
RN 796853-43-5 HCAPLUS

CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with 5-[[4-(trans-4-heptylcyclohexyl)phenoxy]methyl]-1,3-benzenediamine and 4,4'-[1,5-pentanediylbis(oxy)]bis[benzenamine] (9CI) (CA INDEX NAME)

CM 1

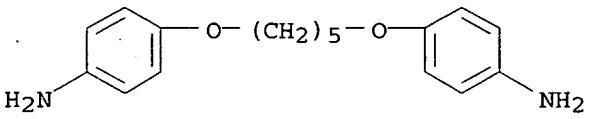
CRN 796853-39-9
CMF C26 H38 N2 O

Relative stereochemistry.



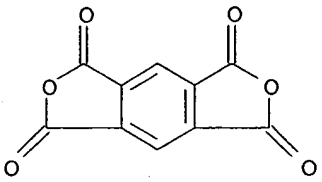
CM 2

CRN 2391-56-2
CMF C17 H22 N2 O2



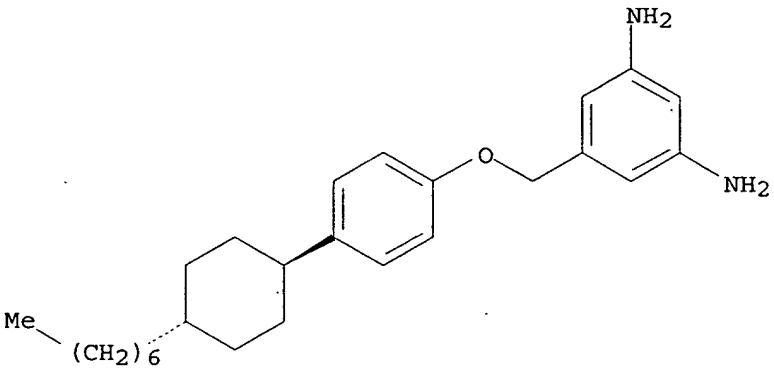
CM 3

CRN 89-32-7
CMF C10 H2 O6



IT **796853-39-9P**
(polyimide alignment agent for liquid crystal display element)
RN 796853-39-9 HCAPLUS
CN 1,3-Benzenediamine, 5-[[4-(trans-4-heptylcyclohexyl)phenoxy]methyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IC ICM C08G073-10
ICS C08L079-08; G02F001-1337
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25, 35, 38
IT 182315-97-5P, 4,4'-Diaminodiphenylmethane-1,2,3,4-cyclobutanetetracarboxylic dianhydride-pyromellitic dianhydride copolymer 796853-37-7P 796853-40-2P 796853-41-3P 796853-42-4P **796853-43-5P**
(polyimide alignment agent for liquid crystal display element)
IT 796853-38-8P **796853-39-9P**
(polyimide alignment agent for liquid crystal display element)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

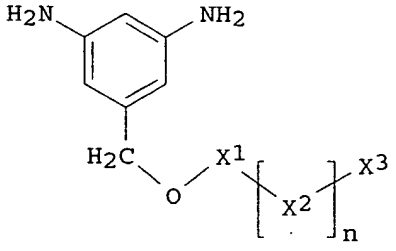
L32 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:515568 HCAPLUS
DOCUMENT NUMBER: 141:54799
TITLE: Novel diaminobenzene derivative, polyimide precursor and polyimide obtained therefrom, and aligning agent for liquid crystal
INVENTOR(S): Hosaka, Kazuyoshi; Taki, Hirotsugu; Nawata, Hideyuki
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052962	A1	20040624	WO 2003-JP15800	2003 1210
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003289305	A1	20040630	AU 2003-289305	2003 1210
CN 1720280	A	20060111	CN 2003-80105205	2003 1210

PRIORITY APPLN. INFO.:			JP 2002-359224	A 2002 1211
			WO 2003-JP15800	W 2003 1210

OTHER SOURCE(S): MARPAT 141:54799
GI



I

AB The present invention relates to (i) a novel diamine useful especially as a material for a resin for liquid-crystal alignment films, (ii) a polyimide precursor or polyimide synthesized from the diamine, and (iii) an aligning agent for liquid crystals which comprises the polymer. The aligning agent gives a liquid-crystal alignment film

which has a high pretilt angle for liquid crystals, has excellent thermal stability of the pretilt angle, and is reduced in the dependence of the pretilt angle on rubbing pressure. The diamine is a diaminobenzene derivative I, wherein X1, X2 = a cyclic group and X3 = a member selected from alkyl, alkoxy, fluoroalkyl, fluoroalkoxy, fluorine, chlorine, bromine, and cyano. The polyimide precursor or polyimide is synthesized using the diaminobenzene derivative as part of the starting materials. The aligning agent for liquid crystals comprises at least one of these polymers. Thus, 100.00 g biphenol and 103.90 g 1-bromooctane were reacted at 110° for 10 h, reacted with 3,5-dinitrobenzyl chloride, and reduced to give a diamine with m.p. 192-196°, 1.64 g of which was polymerized with 2.25 g 1,4-diaminobenzene and 7.81 g 3,4-dicarboxy-1,2,3,4-tetrahydro-1-naphthalene succinic dianhydride to give 20%-solids polyimide precursor with viscosity 3481 mPa-s and weight average mol. weight 134,600, the resulting precursor solution was diluted with NMP and Bu cellosolve, applied on an ITO-coated glass substrate, heated at 80° for 5 min and 220° for 1 h, rubbed with a rayon cloth, and fabricated into a liquid crystal cell, showing free tilt angle 6.8° initially, 6.9° after treatment at 120° for 5 min, and 6.9° after treatment at 120° for 1 h.

IT **709031-69-6P 709031-71-0P**
(liquid crystal; preparation of diaminobenzene derivs. for polyimide precursors useful as aligning agents for liquid crystals)

RN 709031-69-6 HCAPLUS

CN Naphtho[1,2-c]furan-1,3-dione, 3a,4,5,9b-tetrahydro-5-(tetrahydro-2,5-dioxo-3-furanyl)-, polymer with 1,4-benzenediamine and 5-[[[4'-(octyloxy)[1,1'-biphenyl]-4-yl]oxy]methyl]-1,3-benzenediamine (9CI) (CA INDEX NAME)

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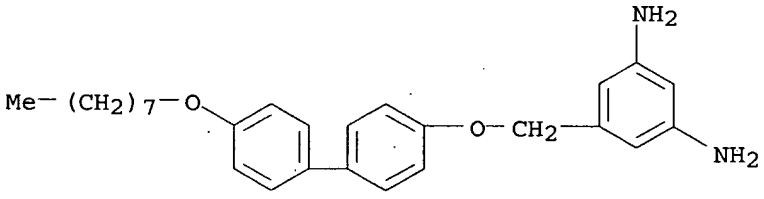
CRN 709031-65-2
CMF C27 H34 N2 O2



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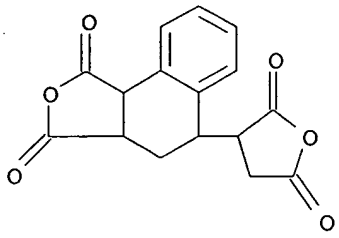
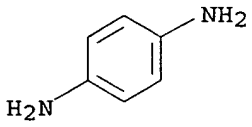
CRN 13912-65-7
CMF C16 H12 O6



CM 3

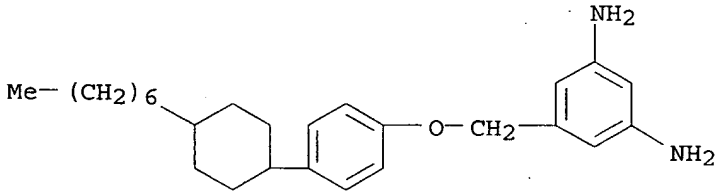
CRN 106-50-3
CMF C6 H8 N2



RN 709031-71-0 HCAPLUS
CN Naphtho[1,2-c]furan-1,3-dione, 3a,4,5,9b-tetrahydro-5-(tetrahydro-2,5-dioxo-3-furanyl)-, polymer with 1,4-benzenediamine and 5-[[4-(4-heptylcyclohexyl)phenoxy]methyl]-1,3-benzenediamine (9CI) (CA INDEX NAME)

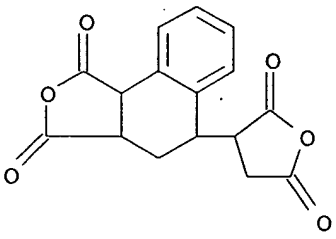
CM 1

CRN 709031-68-5
CMF C26 H38 N2 O



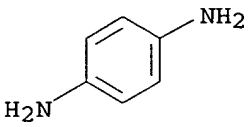
CM 2

CRN 13912-65-7
CMF C16 H12 O6

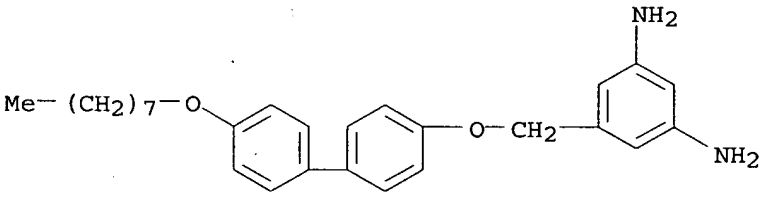


CM 3

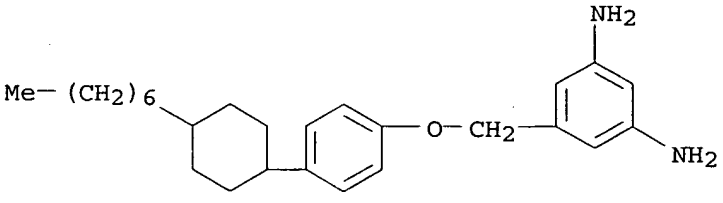
CRN 106-50-3
CMF C6 H8 N2



IT **709031-65-2P 709031-68-5P**
(monomer; preparation of diaminobenzene derivs. for polyimide precursors useful as aligning agents for liquid crystals)
RN 709031-65-2 HCAPLUS
CN 1,3-Benzenediamine, 5-[[[4'-(octyloxy)[1,1'-biphenyl]-4-yl]oxy]methyl]- (9CI) (CA INDEX NAME)



RN 709031-68-5 HCAPLUS
CN 1,3-Benzenediamine, 5-[[4-(4-heptylcyclohexyl)phenoxy]methyl]- (9CI) (CA INDEX NAME)



IC ICM C08G073-10
ICS C07C217-76; G02F001-1337
CC 35-2 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 25, 38, 74, 75

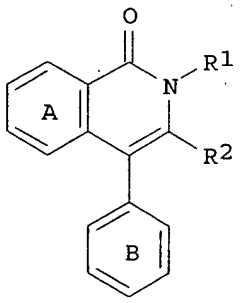
IT **709031-69-6P 709031-71-0P**
(liquid crystal; preparation of diaminobenzene derivs. for polyimide precursors useful as aligning agents for liquid crystals)
IT **709031-65-2P 709031-68-5P**
(monomer; preparation of diaminobenzene derivs. for polyimide precursors useful as aligning agents for liquid crystals)

L32 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:902258 HCAPLUS
DOCUMENT NUMBER: 137:379992
TITLE: Method of inhibiting neoplastic cells with isoquinolinonecarboxylates
INVENTOR(S): Pamukcu, Rifat; Piazza, Gary A.
PATENT ASSIGNEE(S): Cell Pathways, Inc., USA
SOURCE: U.S., 119 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6486155	B1	20021126	US 1998-198413	1998 1124

PRIORITY APPLN. INFO.: US 1998-198413 1998 1124

OTHER SOURCE(S): MARPAT 137:379992
GI



I

AB A method is claimed for inhibiting neoplasia (no data), particularly cancerous and precancerous lesions, by exposing the affected cells to 1-isoquinoline-3-carboxylates. Such compds. are effective in modulating apoptosis and eliminating and inhibiting the growth of neoplasias such as precancerous lesions, but are not characterized by the severe side reactions of conventional non-steroidal antiinflammatory drugs or other chemotherapeutics. Although the methods of preparation are not claimed, example prepns. of 429 isoquinolines and 107 intermediates are included; these examples are referenced to PCT application WO 98/38168. Although the claims indicate I (ring A and ring B are the same or different

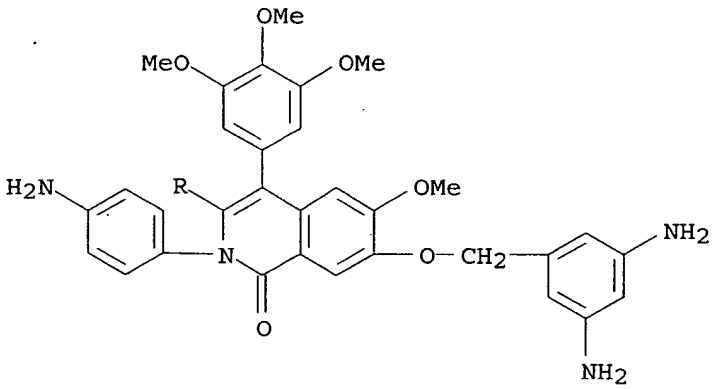
and each a (un)substituted benzene ring, R1 is morpholine, R2 is -COOR3, and R3 is alkyl; e.g. 7-benzyloxy-6-methoxy-3-methoxycarbonyl-2-morpholino-4-(3,4,5-trimethoxyphenyl)-1(2H)-isoquinolinone) or pharmaceutically acceptable salt thereof, the examples include a much broader variety of 1-isoquinoline-3-carboxylates.

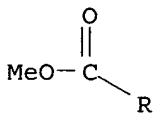
IT **212498-74-3P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, trihydrochloride **212499-20-2P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, trihydrochloride **212499-85-9P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-, methyl ester, trihydrochloride **212500-32-8P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester **212500-49-7P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester **212500-73-7P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-, methyl ester
(preparation of isoquinolinonecarboxylates for inhibiting neoplastic cells)

RN 212498-74-3 HCAPLUS

CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, trihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



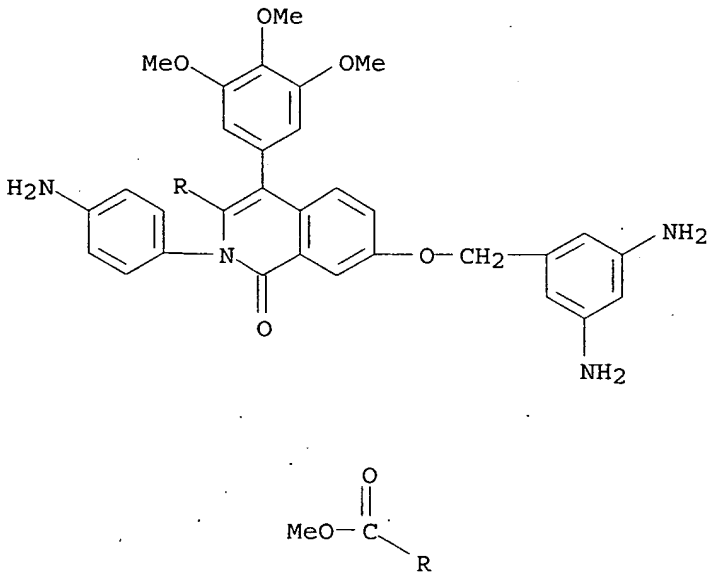


PAGE 2-A

●3 HCl

RN 212499-20-2 HCAPLUS
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, trihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

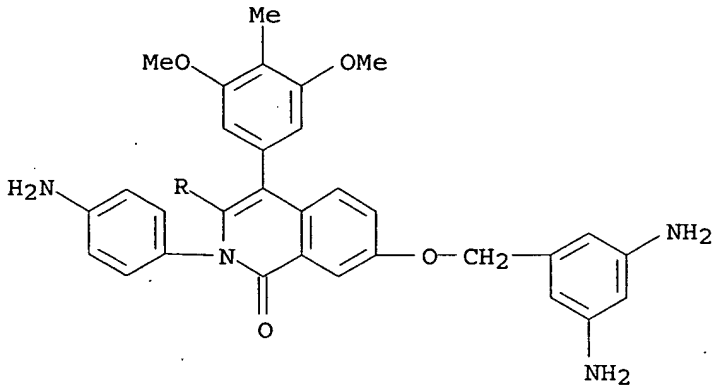


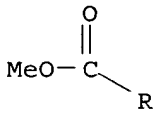
PAGE 2-A

●3 HCl

RN 212499-85-9 HCAPLUS
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-, methyl ester, trihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

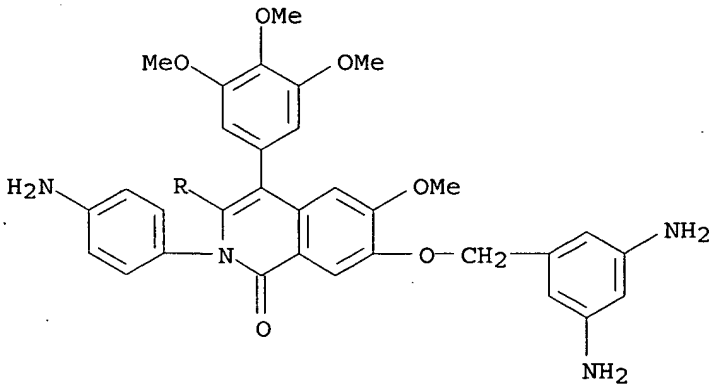


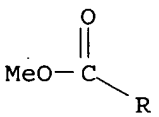


PAGE 2-A

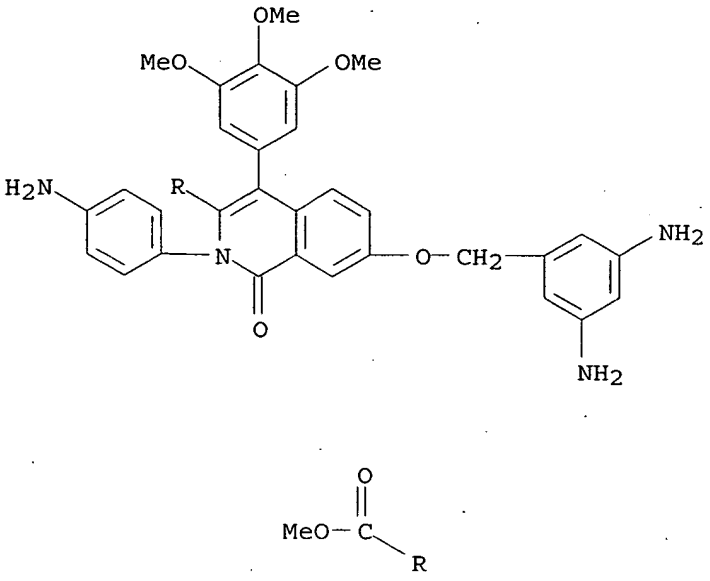
●3 HCl

RN 212500-32-8 HCAPLUS
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester (9CI) (CA INDEX NAME)

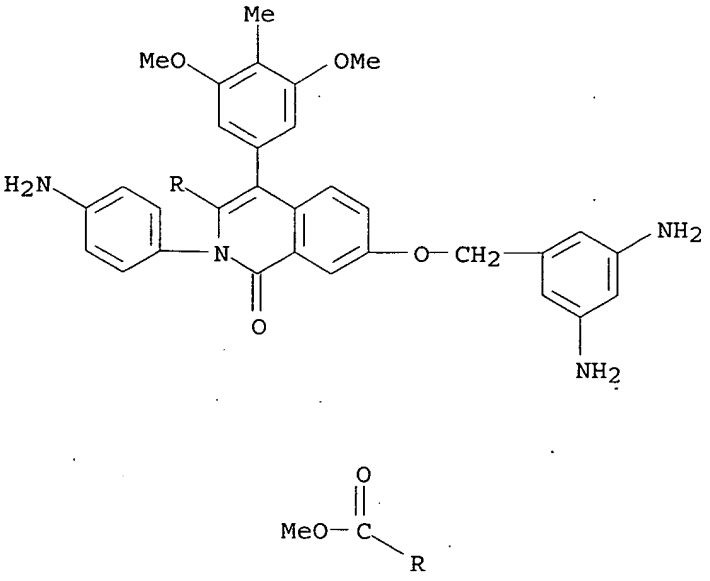




RN 212500-49-7 HCAPLUS
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 212500-73-7 HCAPLUS
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-, methyl ester (9CI) (CA INDEX NAME)



IC ICM A61K031-535
INCL 514235200

CC 1-6 (Pharmacology)
Section cross-reference(s): 27

IT 212498-07-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-dimethoxyphenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride
212498-09-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,4-dimethoxyphenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride
212498-11-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(2,3-dimethoxyphenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride
212498-13-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-6-methoxy-7-[(2-methoxyphenyl)methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride
212498-16-3P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-6-methoxy-7-[(4-methoxyphenyl)methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride
212498-19-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-(1H-benzimidazol-2-ylmethoxy)-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212498-22-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[(4-methylphenyl)sulfonyl]oxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-25-4P, 3-Isoquinolinecarboxylic acid, 2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-1-oxo-7-(4-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester
212498-29-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-7-(4-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212498-31-2P, 3-Isoquinolinecarboxylic acid, 2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-1-oxo-7-(3-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester
212498-33-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-7-(3-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212498-35-6P, 3-Isoquinolinecarboxylic acid, 2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-1-oxo-7-(2-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester
212498-37-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-7-(2-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212498-39-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[(4-nitrophenyl)methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-41-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[(3-nitrophenyl)methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride
212498-43-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[(2-nitrophenyl)methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride
212498-45-8P, 3-Isoquinolinecarboxylic acid, 4-(4-bromo-3,5-dimethoxyphenyl)-2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-6-methoxy-1-oxo-7-(phenylmethoxy)-, methyl ester
212498-47-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-6-methoxy-1-oxo-7-(phenylmethoxy)-, methyl ester, monohydrochloride 212498-49-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-7-hydroxy-6-methoxy-1-oxo-, methyl ester 212498-51-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-7-hydroxy-6-methoxy-1-oxo-, methyl ester, monohydrochloride

212498-53-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-6-methoxy-1-oxo-7-(4-pyridinylmethoxy)-, methyl ester, dihydrochloride 212498-55-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-6-methoxy-1-oxo-7-(3-pyridinylmethoxy)-, methyl ester, dihydrochloride 212498-57-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-6-methoxy-1-oxo-7-(2-pyridinylmethoxy)-, methyl ester, dihydrochloride 212498-59-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-6-methoxy-1-oxo-7-(2-quinolinylmethoxy)-, methyl ester, dihydrochloride 212498-60-7P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-2-(4-morpholinyl)-1-oxo-7-(phenylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212498-62-9P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-7-hydroxy-2-(4-morpholinyl)-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212498-64-1P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-2-(4-morpholinyl)-1-oxo-7-(2-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-65-2P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-2-(4-morpholinyl)-1-oxo-7-(3-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-67-4P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-2-(4-morpholinyl)-1-oxo-7-(4-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-68-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-6-methoxy-7-[(5-methyl-1H-imidazol-4-yl)methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212498-70-9P, 3-Isoquinolinecarboxylic acid, 7-(cyclopropylmethoxy)-2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212498-72-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-(cyclopropylmethoxy)-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-73-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[6-(hydroxymethyl)-2-pyridinyl]methoxy]-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride **212498-74-3P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, trihydrochloride 212498-75-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-(1H-benzimidazol-2-ylmethoxy)-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212498-76-5P, 3-Isoquinolinecarboxylic acid, 2-(2,6-dioxo-4-piperidinyl)-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212498-77-6P, 3-Isoquinolinecarboxylic acid, 2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-1-oxo-8-(phenylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212498-78-7P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-8-(phenylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212498-79-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-8-hydroxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-80-1P, 3-Isoquinolinecarboxylic acid, 4-(4-bromo-3,5-dimethoxyphenyl)-2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-1-oxo-7-(phenylmethoxy)-, methyl ester 212498-81-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(phenylmethoxy)-, methyl ester, monohydrochloride 212498-82-3P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-

dihydro-7-hydroxy-1-oxo-, methyl ester 212498-83-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-7-hydroxy-1-oxo-, methyl ester, monohydrochloride 212498-84-5P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-1-oxo-2-phenyl-7-(phenylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212498-85-6P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-7-hydroxy-1-oxo-2-phenyl-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212498-86-7P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-1-oxo-2-phenyl-7-(2-quinolinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-87-8P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-1-oxo-2-phenyl-7-(4-quinolinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-88-9P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-1-oxo-2-phenyl-7-(4-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-89-0P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-1-oxo-2-phenyl-7-(3-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-90-3P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-1-oxo-2-phenyl-7-(2-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-91-4P, 3-Isoquinolinecarboxylic acid, 1,2-dihydro-2-(4-morpholinyl)-1-oxo-7-(2-quinolinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-92-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[[3-(dimethylamino)phenyl]methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212498-93-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-7-(pyrazinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212498-94-7P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-dimethoxyphenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-95-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(2,5-dimethoxyphenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212498-96-9P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(phenylmethoxy)-, methyl ester, monohydrochloride 212498-97-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-7-hydroxy-1-oxo-, methyl ester 212498-98-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(2-pyridinylmethoxy)-, methyl ester, dihydrochloride 212498-99-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(3-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-00-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(4-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-01-9P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(2-quinolinylmethoxy)-, methyl ester, dihydrochloride 212499-02-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(2-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-03-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(3-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-04-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(4-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-05-3P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-1-

oxo-7-(2-quinolinylmethoxy)-, methyl ester, dihydrochloride 212499-06-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-7-[(3,5-dimethoxyphenyl)methoxy]-1,2-dihydro-1-oxo-, methyl ester, monohydrochloride 212499-07-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3-aminophenyl)methoxy]-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-, methyl ester, dihydrochloride 212499-09-7P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-7-[(3,5-dimethoxyphenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-, methyl ester, monohydrochloride 212499-11-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-7-[(2,5-dimethoxyphenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-, methyl ester, monohydrochloride 212499-13-3P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-7-(cyanomethoxy)-1,2-dihydro-6-methoxy-1-oxo-, methyl ester, monohydrochloride 212499-15-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-7-(1-isoquinolinylmethoxy)-6-methoxy-1-oxo-, methyl ester, dihydrochloride 212499-17-7P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-hydroxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212499-19-9P, 3-Isoquinolinecarboxylic acid, 2-[4-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]phenyl]-1,2-dihydro-7-hydroxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester **212499-20-2P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, trihydrochloride 212499-21-3P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[6-(hydroxymethyl)-2-pyridinyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212499-22-4P, 3-Isoquinolinecarboxylic acid, 2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-7-[[4-(methoxycarbonyl)phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212499-23-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[4-(methoxycarbonyl)phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212499-25-7P, 3-Isoquinolinecarboxylic acid, 2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-7-[[3-(methoxycarbonyl)phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212499-27-9P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(4-carboxyphenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, 3-methyl ester, monohydrochloride 212499-29-1P, 3-Isoquinolinecarboxylic acid, 7-[(3-carboxyphenyl)methoxy]-2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, 3-methyl ester 212499-31-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3-carboxyphenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, 3-methyl ester, monohydrochloride 212499-32-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[4-[(4-methyl-1-piperazinyl)carbonyl]phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212499-33-7P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[3-[(4-methyl-1-piperazinyl)carbonyl]phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212499-34-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[3-(methylamino)phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212499-35-9P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[2-(hydroxymethyl)phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-,

methyl ester, monohydrochloride 212499-36-0P,
3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[3-(hydroxymethyl)phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212499-37-1P,
3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[4-(hydroxymethyl)phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212499-38-2P,
3-Isoquinolinecarboxylic acid, 2-[4-(acetylamino)phenyl]-1,2-dihydro-1-oxo-7-(2-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212499-39-3P, 3-Isoquinolinecarboxylic acid, 2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-7-[(1-oxido-2-pyridinyl)methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212499-40-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[(1-oxido-2-pyridinyl)methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212499-41-7P, 3-Isoquinolinecarboxylic acid, 7-[(3-aminophenyl)methoxy]-1,2-dihydro-2-(4-morpholinyl)-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212499-42-8P,
3-Isoquinolinecarboxylic acid, 7-(1H-benzimidazol-2-ylmethoxy)-1,2-dihydro-2-(4-morpholinyl)-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212499-43-9P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-8-hydroxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212499-44-0P,
3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-8-(2-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212499-45-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-8-(3-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212499-46-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-8-(4-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212499-47-3P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-8-(2-quinolinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212499-48-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-8-(2-phenylethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride 212499-49-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-(1H-imidazol-4-ylmethoxy)-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, dihydrochloride 212499-50-8P,
3-Isoquinolinecarboxylic acid, 7-[[4-(aminomethyl)phenyl]methoxy]-1,2-dihydro-2-[4-[(methylsulfonyl)amino]phenyl]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212499-51-9P,
3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-(1H-benzimidazol-2-ylmethoxy)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-, methyl ester, dihydrochloride 212499-52-0P,
3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-7-[(3,5-dimethoxyphenyl)methoxy]-1,2-dihydro-1-oxo-, methyl ester, monohydrochloride 212499-53-1P,
3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-7-[[6-(hydroxymethyl)-2-pyridinyl]methoxy]-1-oxo-, methyl ester, dihydrochloride 212499-54-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(pyrazinylmethoxy)-, methyl ester, dihydrochloride 212499-55-3P,
3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-7-(2-furanylmethoxy)-1,2-dihydro-6-methoxy-1-oxo-, methyl ester, monohydrochloride 212499-56-4P,
3-Isoquinolinecarboxylic acid, 4-(3,5-dimethoxy-4-methylphenyl)-2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-6-methoxy-1-oxo-7-(phenylmethoxy)-, methyl ester 212499-57-5P,

3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-6-methoxy-1-oxo-7-(phenylmethoxy)-, methyl ester, monohydrochloride 212499-58-6P, 3-Isoquinolinecarboxylic acid, 4-(3,5-dimethoxy-4-methylphenyl)-2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-7-hydroxy-6-methoxy-1-oxo-, methyl ester 212499-59-7P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-7-hydroxy-6-methoxy-1-oxo-, methyl ester, monohydrochloride 212499-60-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-6-methoxy-1-oxo-7-(4-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-61-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-6-methoxy-1-oxo-7-(3-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-62-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-6-methoxy-1-oxo-7-(2-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-64-4P

, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-6-methoxy-1-oxo-7-(2-quinolinylmethoxy)-, methyl ester, dihydrochloride 212499-67-7P, 3-Isoquinolinecarboxylic acid, 4-(3,5-dimethoxy-4-methylphenyl)-2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-1-oxo-7-(phenylmethoxy)-, methyl ester 212499-70-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-7-(phenylmethoxy)-, methyl ester, monohydrochloride 212499-73-5P, 3-Isoquinolinecarboxylic acid, 4-(3,5-dimethoxy-4-methylphenyl)-2-[4-[[(1,1-dimethylethoxy)carbonyl]amino]phenyl]-1,2-dihydro-7-hydroxy-1-oxo-, methyl ester 212499-76-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-7-hydroxy-1-oxo-, methyl ester, monohydrochloride 212499-79-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-7-(4-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-80-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-7-(3-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-81-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-7-(2-pyridinylmethoxy)-, methyl ester, dihydrochloride 212499-82-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-7-(2-quinolinylmethoxy)-, methyl ester, dihydrochloride 212499-84-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-7-(1-isoquinolinylmethoxy)-1-oxo-, methyl ester, dihydrochloride **212499-85-9P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-, methyl ester, trihydrochloride 212499-88-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-7-[[6-(hydroxymethyl)-2-pyridinyl]methoxy]-1-oxo-, methyl ester, dihydrochloride 212499-90-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-7-[[3-(methylamino)phenyl]methoxy]-1-oxo-, methyl ester, dihydrochloride 212499-92-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-7-[[2-(hydroxymethyl)phenyl]methoxy]-1-oxo-, methyl ester, monohydrochloride 212499-94-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-

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pyridinylmethoxy)-, methyl ester 212500-38-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-7-(3-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-39-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(2,5-dimethoxyphenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-40-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-dimethoxyphenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-41-9P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(2-pyridinylmethoxy)-, methyl ester 212500-42-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(3-pyridinylmethoxy)-, methyl ester 212500-43-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(4-pyridinylmethoxy)-, methyl ester 212500-44-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3-aminophenyl)methoxy]-4-(4-bromo-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-, methyl ester 212500-45-3P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(2-pyridinylmethoxy)-, methyl ester 212500-46-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(3-pyridinylmethoxy)-, methyl ester 212500-47-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[[3-(dimethylamino)phenyl]methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-48-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-7-(pyrazinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester **212500-49-7P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-50-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[6-(hydroxymethyl)-2-pyridinyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-51-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(4-carboxyphenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, 3-methyl ester 212500-52-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3-carboxyphenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, 3-methyl ester 212500-53-3P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[4-[(4-methyl-1-piperazinyl)carbonyl]phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-54-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[3-[(4-methyl-1-piperazinyl)carbonyl]phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-57-7P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[3-(methylamino)phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-60-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-7-[[2-(hydroxymethyl)phenyl]methoxy]-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester
(preparation of isoquinolinonecarboxylates for inhibiting neoplastic cells)

IT 212500-64-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-8-(2-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-66-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-8-(3-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-67-9P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-

8-(4-pyridinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212500-68-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-7-[[6-(hydroxymethyl)-2-pyridinyl]methoxy]-1-oxo-, methyl ester 212500-69-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(pyrazinylmethoxy)-, methyl ester 212500-70-4P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-7-(4-pyridinylmethoxy)-, methyl ester 212500-71-5P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-7-(3-pyridinylmethoxy)-, methyl ester 212500-72-6P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-7-(2-pyridinylmethoxy)-, methyl ester **212500-73-7P**, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-, methyl ester 212500-74-8P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-7-[[6-(hydroxymethyl)-2-pyridinyl]methoxy]-1-oxo-, methyl ester 212500-75-9P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-7-[[3-(methylamino)phenyl]methoxy]-1-oxo-, methyl ester 212500-76-0P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-7-[[2-[(hydroxymethyl)amino]phenyl]methoxy]-1-oxo-, methyl ester 212500-77-1P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-7-(pyrazinylmethoxy)-, methyl ester 212500-78-2P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-4-(4-chloro-3,5-dimethoxyphenyl)-1,2-dihydro-1-oxo-7-(4-pyridinylmethoxy)-, methyl ester 212501-80-9P, 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester 212501-90-1P, 3-Isoquinolinecarboxylic acid, 2-(4-carboxyphenyl)-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, 3-methyl ester, sodium salt
(preparation of isoquinolinonecarboxylates for inhibiting neoplastic cells)

REFERENCE COUNT: 171 THERE ARE 171 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:151451 HCAPLUS
DOCUMENT NUMBER: 132:207769
TITLE: Preparation of isoquinolinones as effective component in medicine
INVENTOR(S): Ukita, Shinzo; Ohmori, Kanji; Ikeo, Tomihiro
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 148 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000072675	A2	20000307	JP 1998-240446	1998

PRIORITY APPLN. INFO.: JP 1998-240446 0826
1998
0826

OTHER SOURCE(S): MARPAT 132:207769

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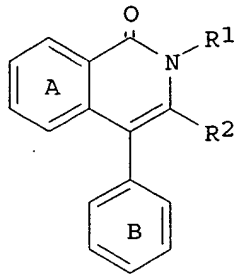

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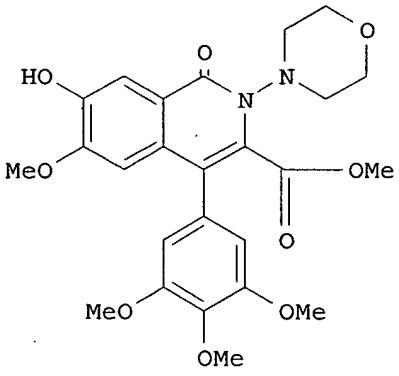


II

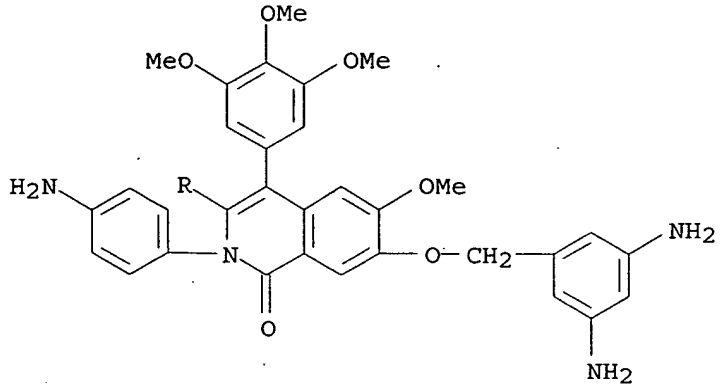
AB Title compds. [I; ring A and ring B equivalent or different, substituted or unsubstituted benzene ring; R1 = H, N(CH3)2, 4-H2NC6H4, 4-CH3OCOC6H4, alkyl, cycloalkyl, aryl, complex cyclic; R2 = COOH, COOCH3, COOCH2CH3, COOCH2C6H5, COO(CH2)3CH3] and pharmaceutical acceptable salts are prepared and tested as PDEV inhibitors. The title compound II was prepared

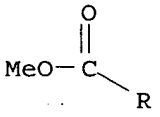
IT **212498-74-3P 212499-20-2P 212499-85-9P**
(preparation of isoquinolinones as effective component in medicine)

RN 212498-74-3 HCAPLUS

CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, trihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



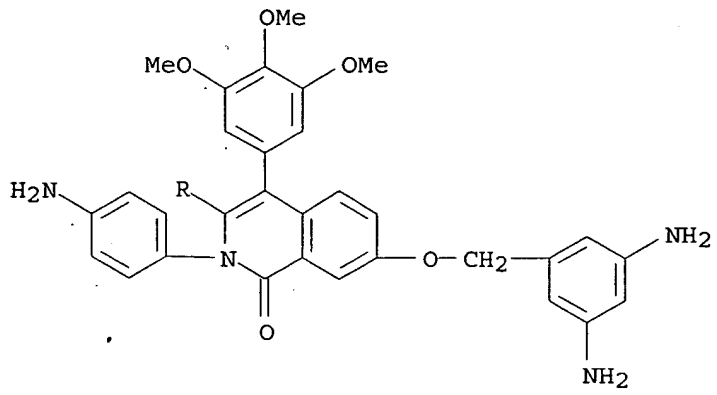


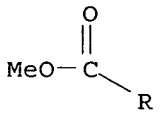
PAGE 2-A

● 3 HCl

RN 212499-20-2 HCAPLUS
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, trihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 2-A

● 3 HCl

RN 212499-85-9 HCAPLUS

CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-, methyl ester, trihydrochloride (9CI) (CA INDEX NAME)

ACCESSION NUMBER: 1998:608601 HCAPLUS
DOCUMENT NUMBER: 129:216521
TITLE: Preparation of 1-isoquinolinone-3-carboxylates as PDE V inhibitors
INVENTOR(S): Ukita, Tatsuzo; Omori, Kenji; Ikeo, Tomihiro
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 299 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9838168	A1	19980903	WO 1998-JP715	1998 0223
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9862300	A1	19980918	AU 1998-62300	1998 0223
JP 10298164	A2	19981110	JP 1998-44139	1998 0226
PRIORITY APPLN. INFO.:			JP 1997-44408 A	1997 0227
			WO 1998-JP715 W	1998 0223

OTHER SOURCE(S): MARPAT 129:216521
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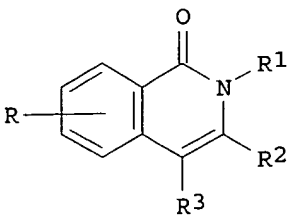

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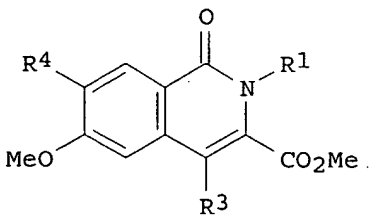
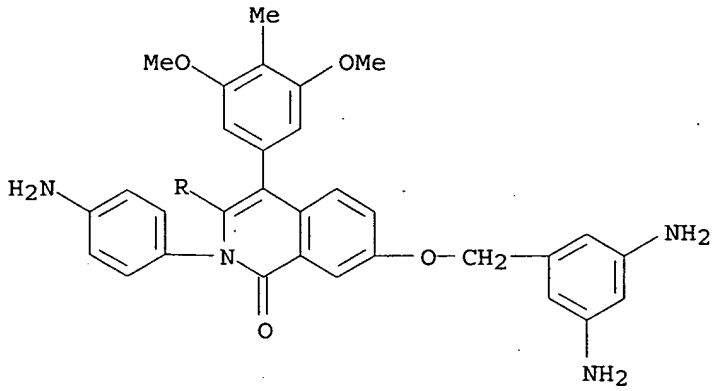
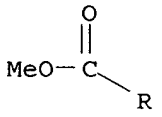


II

AB Title compds. [I; R = H or substituent(s); R1 = H, NH2, (cyclo)alkyl, heterocyclyl, aryl, etc.; R2 = (esterified) CO2H, CONH2, N-attached heterocyclylcarbonyl, etc.; R3 = (un)substituted

PAGE 1-A





PAGE 2-A

●3 HCl

IC ICM A61K031-47
ICS A61K031-47; A61K031-495; A61K031-535; A61K031-54; C07D217-26; C07D401-04; C07D401-06; C07D401-10; C07D401-12; C07D405-04; C07D405-06; C07D405-12; C07D409-12; C07D413-04; C07D491-056

CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 63

IT 212487-20-2P 212488-77-2P 212489-68-4P 212489-86-6P
212490-16-9P 212490-26-1P 212492-25-6P 212492-32-5P
212492-48-3P 212492-51-8P 212492-54-1P 212492-87-0P
212492-91-6P 212492-96-1P 212493-77-1P 212496-03-2P
212496-81-6P 212496-86-1P 212498-05-0P 212498-07-2P
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212498-74-3P 212498-75-4P 212498-81-2P 212498-92-5P
212498-93-6P 212498-94-7P 212498-95-8P 212498-98-1P
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212499-33-7P 212499-34-8P 212499-35-9P 212499-44-0P
212499-45-1P 212499-46-2P 212499-51-9P 212499-52-0P
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212499-94-0P 212500-03-3P 212501-73-0P 260407-34-9P
260414-73-1P
(preparation of isoquinolinones as effective component in medicine)

L32 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

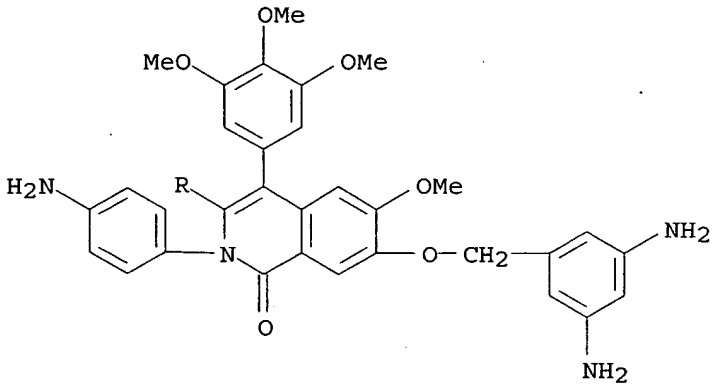
Ph] were prepared as PDE V inhibitors (no data). Thus, 5-benzyloxy-4-methoxy-2-(3,4,5-trimethoxybenzoyl)benzoic acid was cyclocondensed with CH2(CO2CMe3)2 and the hydrated product cyclocondensed with 4-(H2N)C6H4NHCO2CMe3 to give, in 4 addnl. steps, title compound II [R1 = C6H4(NH2)-4, R3 = C6H2(OMe)3-3,4,5, R4 = 2-pyridylmethoxy].

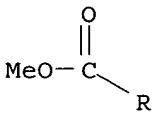
IT **212498-74-3P 212499-20-2P 212499-85-9P 212500-32-8P 212500-49-7P 212500-73-7P**
(preparation of 1-isoquinolinone-3-carboxylates as PDE V inhibitors)

RN 212498-74-3 HCAPLUS

CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, trihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A





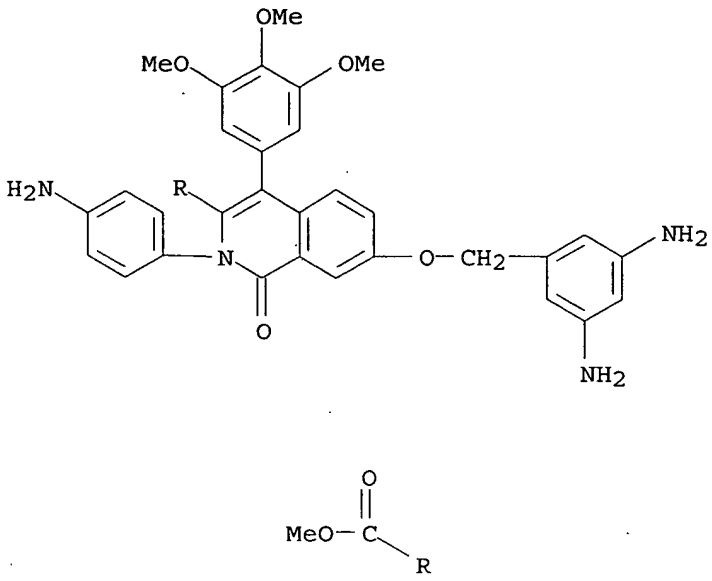
PAGE 2-A

●3 HCl

RN 212499-20-2 HCAPLUS

CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester, trihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

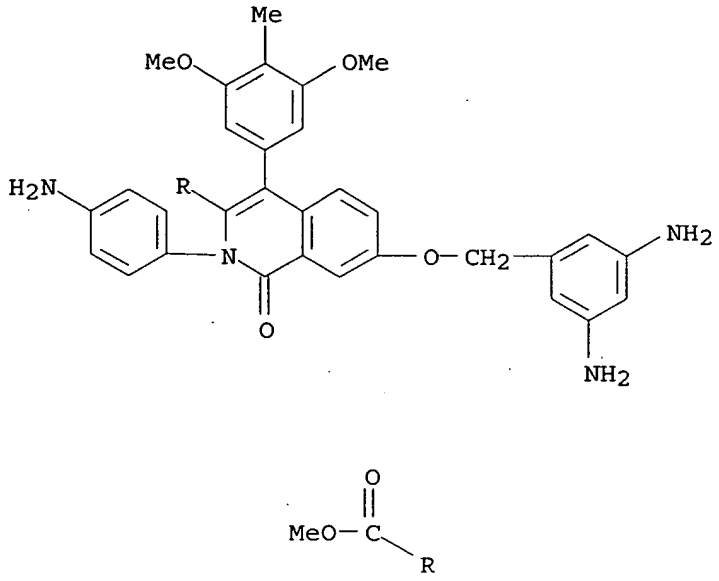


PAGE 2-A

● 3 HCl

RN 212499-85-9 HCAPLUS
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-, methyl ester, trihydrochloride (9CI) (CA INDEX NAME)

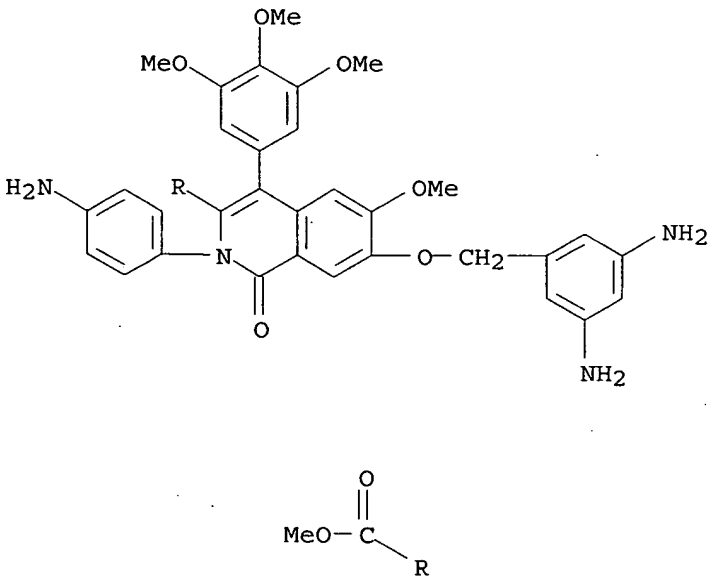
PAGE 1-A



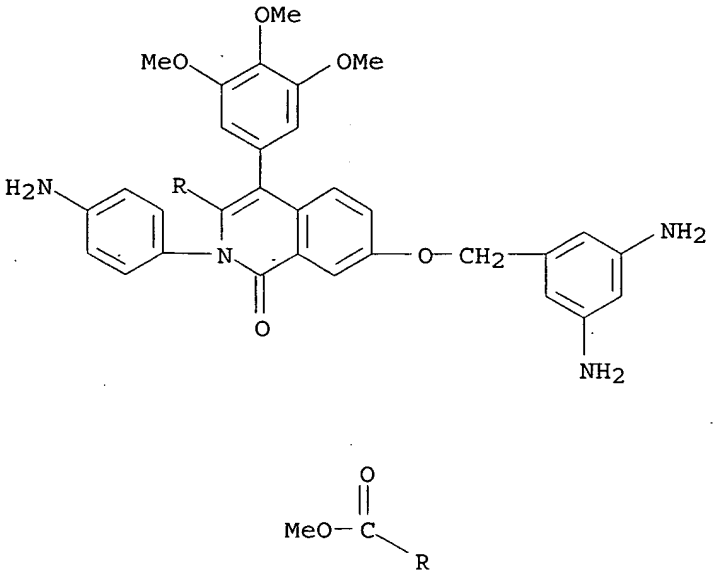
PAGE 2-A

● 3 HCl

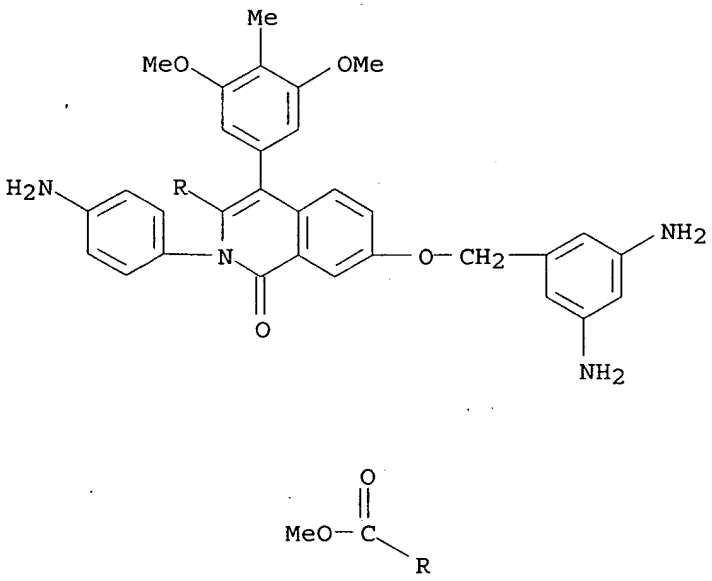
RN 212500-32-8 HCAPLUS
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-6-methoxy-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 212500-49-7 HCAPLUS
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-1,2-dihydro-1-oxo-4-(3,4,5-trimethoxyphenyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 212500-73-7 HCAPLUS
CN 3-Isoquinolinecarboxylic acid, 2-(4-aminophenyl)-7-[(3,5-diaminophenyl)methoxy]-4-(3,5-dimethoxy-4-methylphenyl)-1,2-dihydro-1-oxo-, methyl ester (9CI) (CA INDEX NAME)



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C07D405-04; C07D405-06; C07D491-04; C07D413-04; C07D401-10;
C07D405-12; C07D491-04; C07D317-00; C07D221-00

CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1

IT

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212499-84-8P **212499-85-9P** 212499-88-2P 212499-90-6P
(preparation of 1-isoquinolinone-3-carboxylates as PDE V inhibitors)
IT 212499-92-8P 212499-94-0P 212499-96-2P 212499-98-4P
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212500-25-9P 212500-27-1P 212500-28-2P 212500-30-6P
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212500-73-7P 212500-74-8P 212500-75-9P 212500-76-0P
212500-77-1P 212500-78-2P 212501-80-9P 212501-90-1P
(preparation of 1-isoquinolinone-3-carboxylates as PDE V inhibitors)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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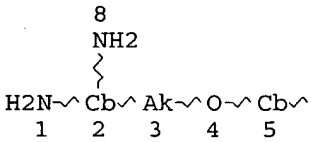

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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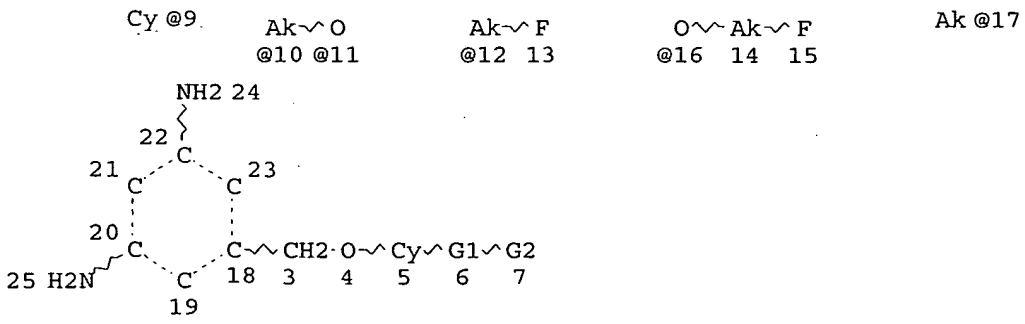
NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE
L9 SCR 1098
L11 STR



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GGCAT IS MCY AT 9
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GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
L17 STR

O~Cy~Cy
1 2 3

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
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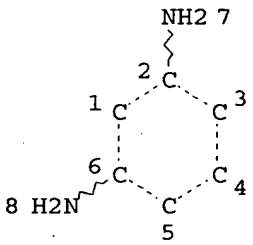

NODE ATTRIBUTES:
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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE
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L30 14 SEA FILE=REGISTRY SUB=L27 SSS FUL L11
L36 46 SEA FILE=REGISTRY SUB=L27 SSS FUL L3
L37 38 SEA FILE=REGISTRY ABB=ON L36 NOT L30
L38 8 SEA FILE=HCAPLUS ABB=ON L37

=> d l38 1-8 ibib abs hitstr hitind

L38 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:48551 HCAPLUS

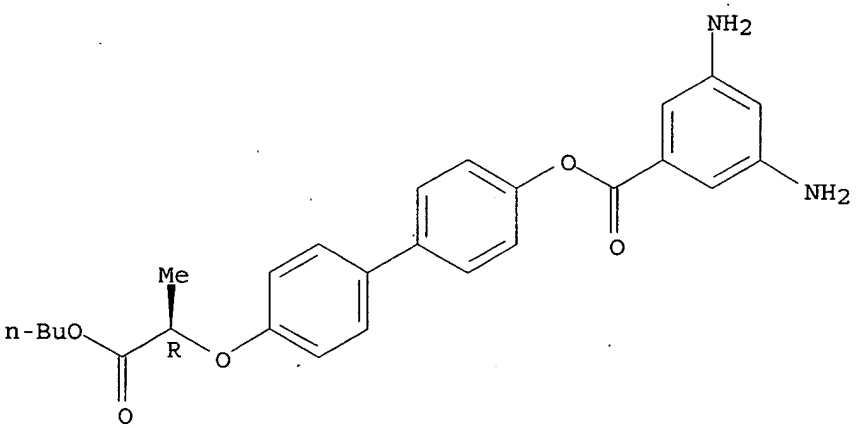
DOCUMENT NUMBER: 144:139035
TITLE: Optically active phenylenediamines, and their polyimides or polyimide precursors
INVENTOR(S): Sahade, Daniel Antonio; Oda, Takuo
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006016303	A2	20060119	JP 2004-187213	2004 0625
PRIORITY APPLN. INFO.:			JP 2004-164336 A	2004 0602

AB The phenylenediamines are PX1X2OG or PX1(CH2)nOX2OG [P = diaminophenyl; X1 = O, CH2O, CO2; X2 = phenylene, diphenylene; G = (R)- or (S)-X3C*HX6X4X5; * = chiral point; X3 = single bond, CH2; x4 = CH2, CO2; X5 = C1-10 alkyl; X6 = CF3, Me; n = 1-10]. The polyimides or polyimide precursors bearing optically active groups on side chains are useful for liquid crystal alignment films for displays.

IT **873691-24-8P**
(optically active phenylenediamines for polyimides or polyimide precursors for liquid crystal alignment films)
RN 873691-24-8 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4'-[(1R)-2-butoxy-1-methyl-2-oxoethoxy][1,1'-biphenyl]-4-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



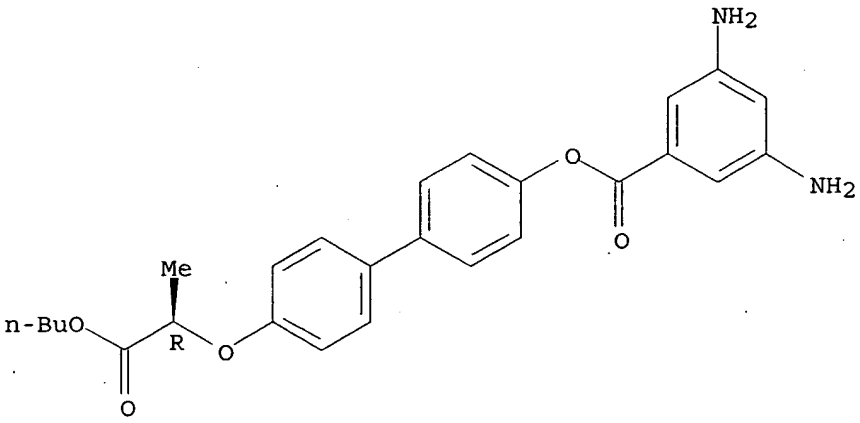
IT **873691-29-3P**
(optically active phenylenediamines for polyimides or polyimide precursors for liquid crystal alignment films)
RN 873691-29-3 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4'-[(1R)-2-butoxy-1-methyl-2-

oxoethoxy][1,1'-biphenyl]-4-yl ester, polymer with 4,4'-[1,5-pentanediylbis(oxy)]bis[benzenamine] and tetrahydrocyclobuta[1,2-c:3,4-c']difurantetrone (9CI) (CA INDEX NAME)

CM 1

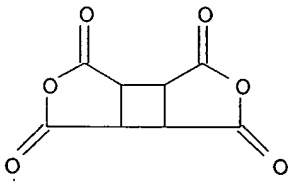
CRN 873691-24-8
CMF C26 H28 N2 O5

Absolute stereochemistry.



CM 2

CRN 4415-87-6
CMF C8 H4 O6



CM 3

CRN 2391-56-2
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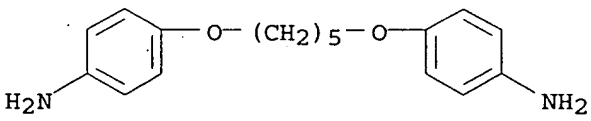

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25, 35, 38

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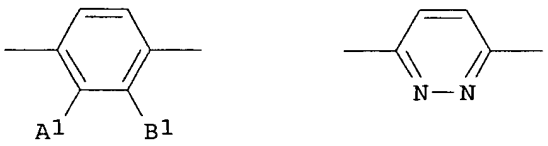
873691-23-7P **873691-24-8P**
(optically active phenylenediamines for polyimides or polyimide precursors for liquid crystal alignment films)
IT 873303-98-1P 873691-25-9P 873691-26-0P 873691-27-1P
873691-28-2P **873691-29-3P** 873691-30-6P 873691-31-7P
873691-32-8P
(optically active phenylenediamines for polyimides or polyimide precursors for liquid crystal alignment films)

L38 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:467943 HCAPLUS
DOCUMENT NUMBER: 143:16591
TITLE: Alignment agents for liquid crystals and display devices using them
INVENTOR(S): Nakada, Shoichi; Kumano, Atsushi
PATENT ASSIGNEE(S): JSR Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005139288	A2	20050602	JP 2003-376792	2003 1106
KR 2005043686	A	20050511	KR 2004-89639	2004 1105

PRIORITY APPLN. INFO.: JP 2003-376792 A 2003 1106

GI



I II

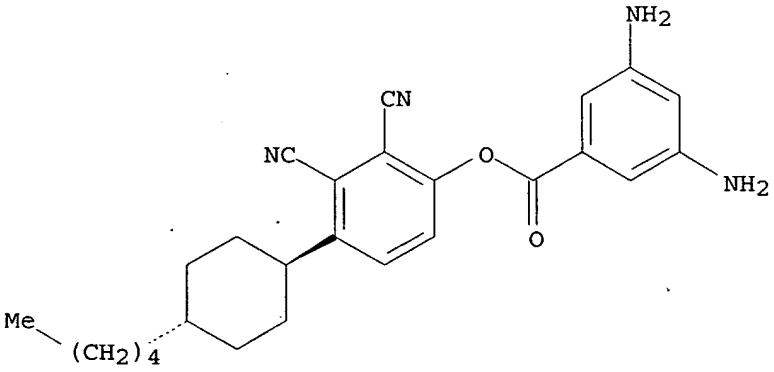
AB The agents contain polymers having ≥1 side chains selected from I (A1, B1 = H, halo, CN; A1 and/or B1 = halo or CN) and II. The display devices have liquid-crystal alignment films of the agents. The films show stable perpendicular alignment.
IT **852335-76-3P**
(alignment agents with stable perpendicular alignment for liquid-crystal displays)
RN 852335-76-3 HCAPLUS

CN Benzoic acid, 3,5-diamino-, 2,3-dicyano-4-(trans-4-pentylcyclohexyl)phenyl ester, polymer with hexahydro-1H,3H-furo[3',4':3,4]cyclopenta[1,2-c]pyran-1,3,5,7-tetrone (9CI) (CA INDEX NAME)

CM 1

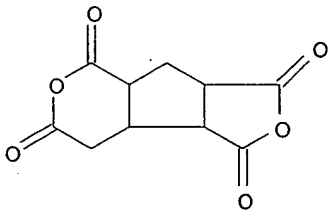
CRN 852335-75-2
CMF C26 H30 N4 O2

Relative stereochemistry.



CM 2

CRN 87078-75-9
CMF C10 H8 O6



IC ICM C09K019-56
ICS C08G073-10; G02F001-1337
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 852335-74-1P **852335-76-3P** 852335-78-5P 852364-45-5P
(alignment agents with stable perpendicular alignment for liquid-crystal displays)

L38 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:175898 HCAPLUS
DOCUMENT NUMBER: 140:225892
TITLE: 1,3-Phenylenediamines bearing long side chains for polymers as alignment films for liquid crystal displays
INVENTOR(S): Tamura, Norihisa

PATENT ASSIGNEE(S): Chisso Corp., Japan; Chisso Petrochemical Corporation
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004067589	A2	20040304	JP 2002-228918	2002 0806

PRIORITY APPLN. INFO.: JP 2002-228918 2002 0806

OTHER SOURCE(S): MARPAT 140:225892

AB The phenylenediamines bearing RA1B1A2B2A3B3A4O2C (A1-A3 = 1,4-cyclohexylene, 1,4-phenylene; A4 = 1,4-cyclohexylene, 1,4-phenylene, single bond; B1-B3 = single bond, CH2CH2; R = C1-20 alkyl; one of CH2 of R may be replaced with O) on position 5 are monomers for polyamic acids, polyimides, polyamide-polyimides, and polyamides. Alignment films manufactured from the polymers show no change of pretilt angles in accordance with change of rubbing or end use condition.

IT **664985-55-1DP**, reaction product with Me iodide
664985-55-1P 664985-56-2P 664985-57-3P
664985-58-4P 664985-59-5P 664985-60-8P
664985-61-9P
(manufacture of phenylenediamines bearing long side chains for polyamic acid, polyamides, polyimides, polyamide-polyimides as alignment films for liquid crystal displays)

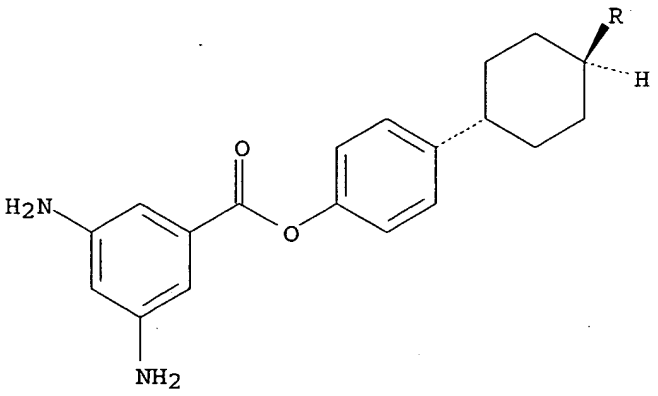
RN 664985-55-1 HCAPLUS

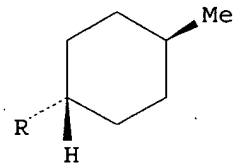
CN 1,4-Benzenedicarboxylic acid, polymer with 4-[(trans,trans)-4'-methyl[1,1'-bicyclohexyl]-4-yl]phenyl 3,5-diaminobenzoate and 4,4'-methylenebis[benzenamine] (9CI) (CA INDEX NAME)

CM 1

CRN 664985-50-6
CMF C26 H34 N2 O2

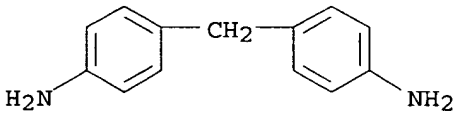
Relative stereochemistry.





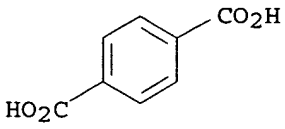
CM 2

CRN 101-77-9
CMF C13 H14 N2



CM 3

CRN 100-21-0
CMF C8 H6 O4



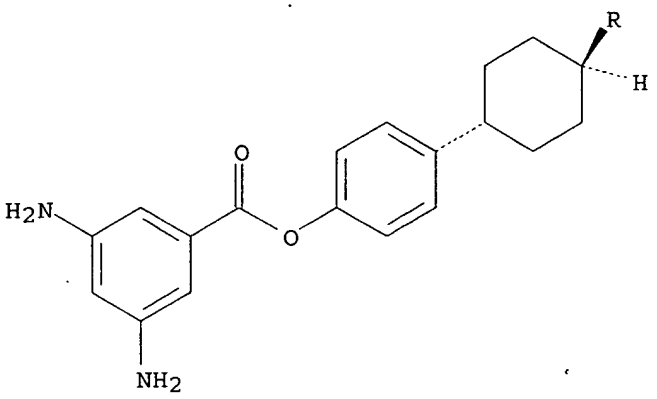
RN 664985-55-1 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 4-[(trans,trans)-4'-methyl[1,1'-bicyclohexyl]-4-yl]phenyl 3,5-diaminobenzoate and 4,4'-methylenebis[benzenamine] (9CI) (CA INDEX NAME)

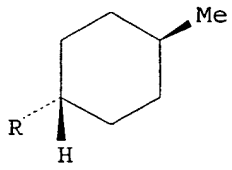
CM 1

CRN 664985-50-6

CMF C26 H34 N2 O2

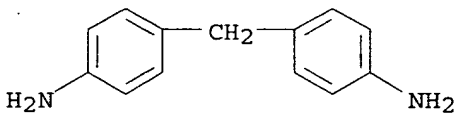
Relative stereochemistry.





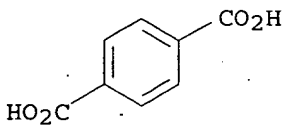
CM 2

CRN 101-77-9
CMF C13 H14 N2



CM 3

CRN 100-21-0
CMF C8 H6 O4

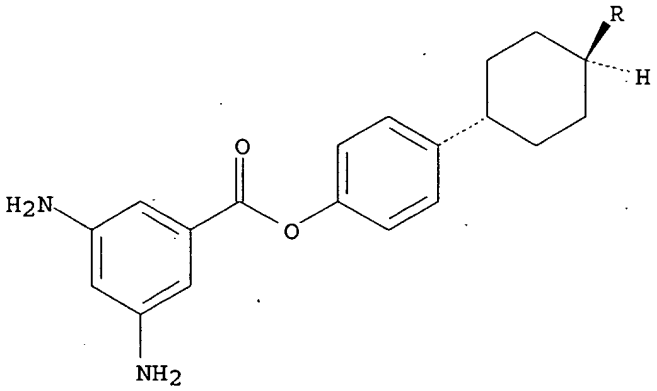


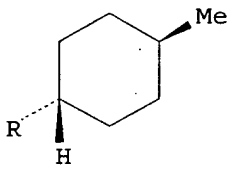
RN 664985-56-2 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4-[(trans,trans)-4'-methyl[1,1'-bicyclohexyl]-4-yl]phenyl ester, polymer with 1,4-benzenedicarbonyl dichloride and 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone (9CI) (CA INDEX NAME)

CM 1

CRN 664985-50-6
CMF C26 H34 N2 O2

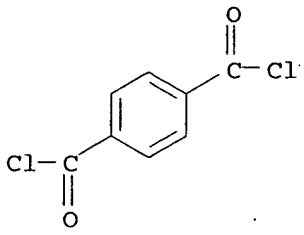
Relative stereochemistry.





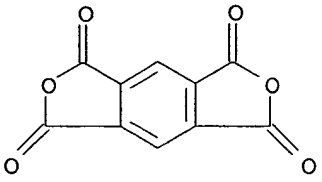
CM 2

CRN 100-20-9
CMF C8 H4 Cl2 O2



CM 3

CRN 89-32-7
CMF C10 H2 O6

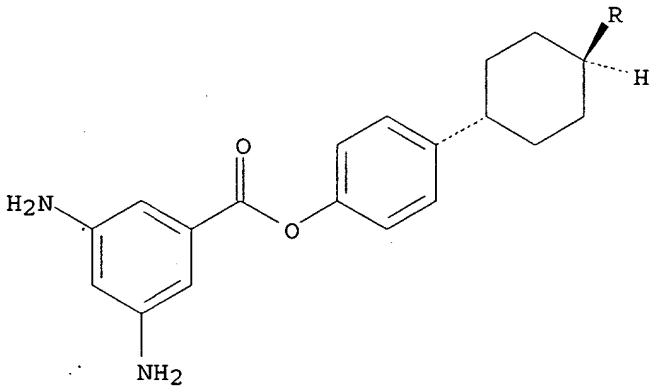


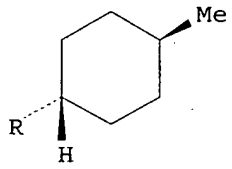
RN 664985-57-3 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4-[(trans,trans)-4'-methyl[1,1'-bicyclohexyl]-4-yl]phenyl ester, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, 4,4'-methylenebis[benzenamine] and tetrahydrocyclobuta[1,2-c:3,4-c']difurantetrone (9CI) (CA INDEX NAME)

CM 1

CRN 664985-50-6
CMF C26 H34 N2 O2

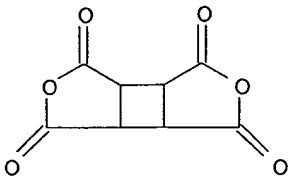
Relative stereochemistry.





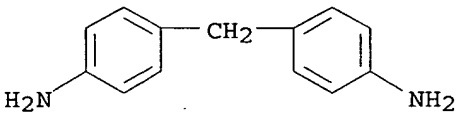
CM 2

CRN 4415-87-6
CMF C8 H4 O6



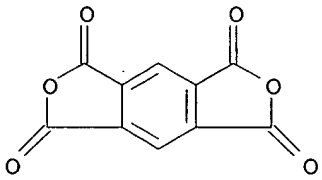
CM 3

CRN 101-77-9
CMF C13 H14 N2



CM 4

CRN 89-32-7
CMF C10 H2 O6

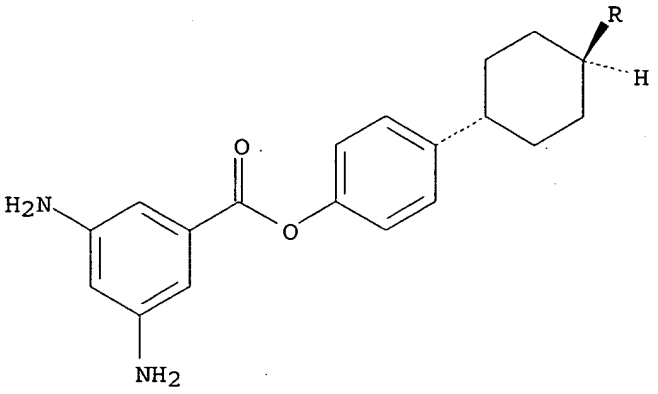


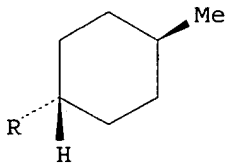
RN 664985-58-4 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4-[(trans,trans)-4'-methyl[1,1'-bicyclohexyl]-4-yl]phenyl ester, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone and tetrahydrocyclobuta[1,2-c:3,4-c']difurantetrone (9CI) (CA INDEX NAME)

CM 1

CRN 664985-50-6
CMF C26 H34 N2 O2

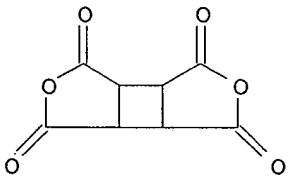
Relative stereochemistry.





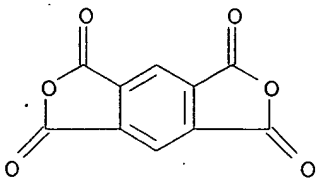
CM 2

CRN 4415-87-6
CMF C8 H4 O6



CM 3

CRN 89-32-7
CMF C10 H2 O6

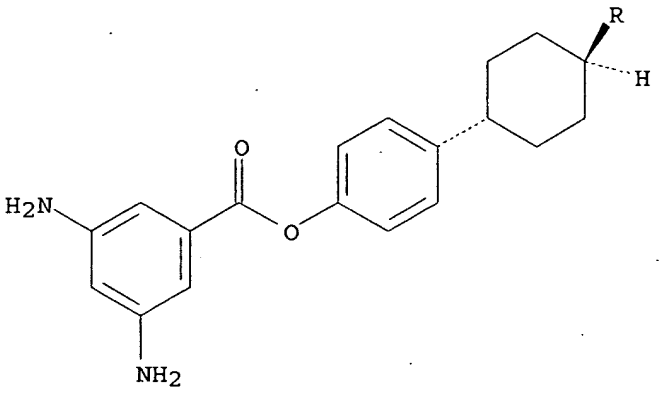


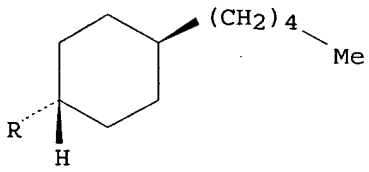
RN 664985-59-5 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4-[(trans,trans)-4'-pentyl[1,1'-bicyclohexyl]-4-yl]phenyl ester, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone and tetrahydrocyclobuta[1,2-c:3,4-c']difurantetrone (9CI) (CA INDEX NAME)

CM 1

CRN 664985-51-7
CMF C30 H42 N2 O2

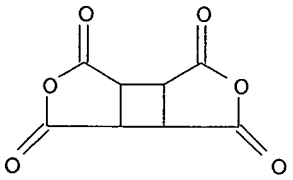
Relative stereochemistry.





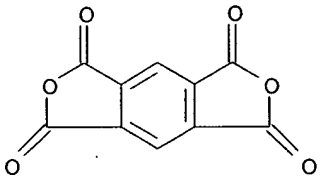
CM 2

CRN 4415-87-6
CMF C8 H4 O6



CM 3

CRN 89-32-7
CMF C10 H2 O6

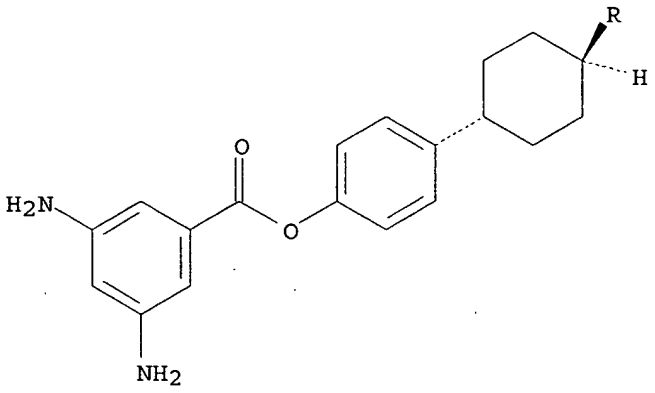


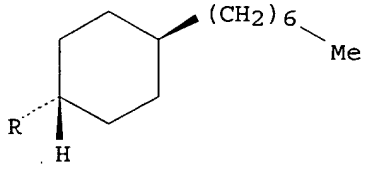
RN 664985-60-8 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4-[(trans,trans)-4'-heptyl[1,1'-bicyclohexyl]-4-yl]phenyl ester, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone and tetrahydrocyclobuta[1,2-c:3,4-c']difurantetrone (9CI) (CA INDEX NAME)

CM 1

CRN 664985-52-8
CMF C32 H46 N2 O2

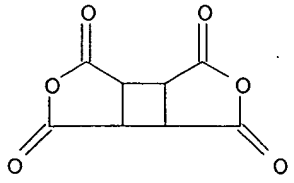
Relative stereochemistry.





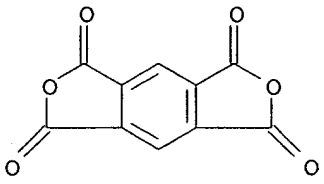
CM 2

CRN 4415-87-6
CMF C8 H4 O6



CM 3

CRN 89-32-7
CMF C10 H2 O6



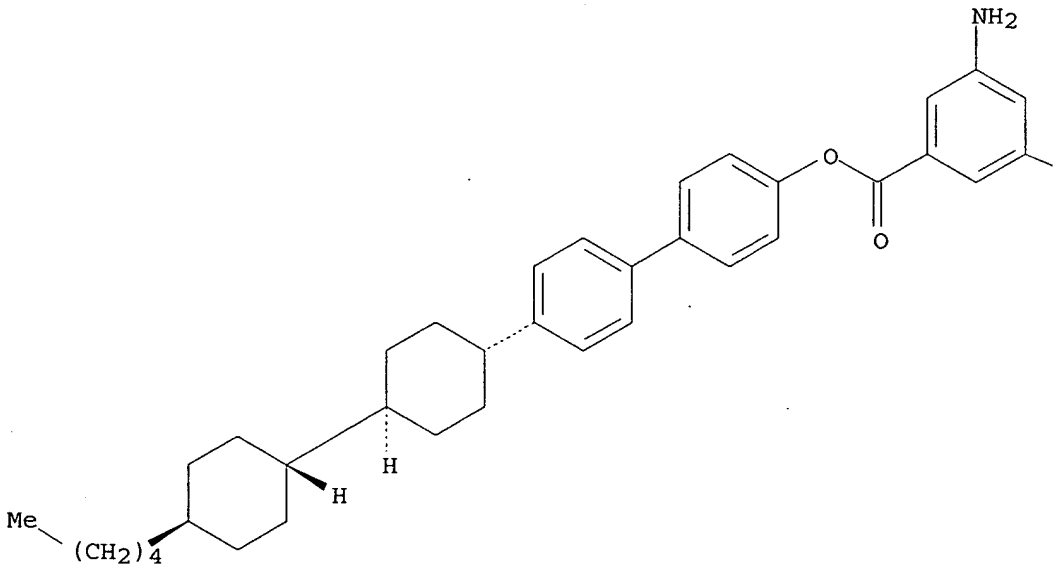
RN 664985-61-9 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4'-[(trans,trans)-4'-pentyl[1,1'-bicyclohexyl]-4-yl][1,1'-biphenyl]-4-yl ester, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone and tetrahydrocyclobuta[1,2-c:3,4-c']difurantetrone (9CI) (CA INDEX NAME)

CM 1

CRN 664985-53-9
CMF C36 H46 N2 O2

Relative stereochemistry.

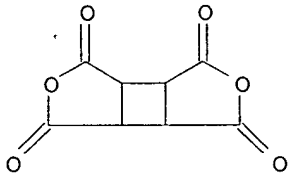
PAGE 1-A



PAGE 1-B

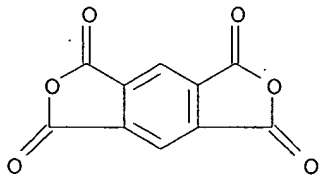
CM 2

CRN 4415-87-6
CMF C8 H4 O6



CM 3

CRN 89-32-7
CMF C10 H2 O6

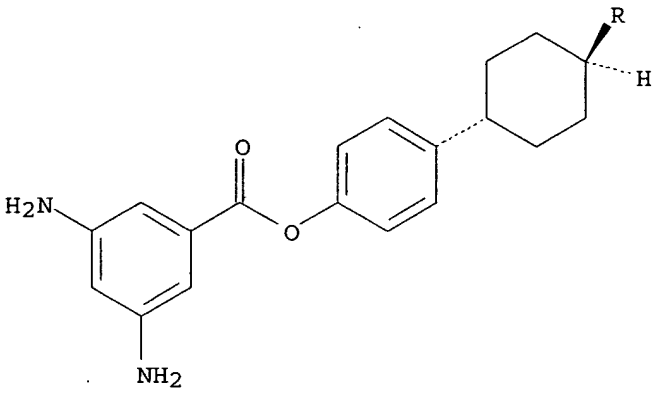


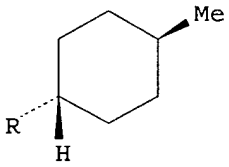
IT **664985-54-0P**
(manufacture of phenylenediamines bearing long side chains for polyamic acid, polyamides, polyimides, polyamide-polyimides as alignment films for liquid crystal displays)
RN 664985-54-0 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4-[(trans,trans)-4'-methyl[1,1'-bicyclohexyl]-4-yl]phenyl ester, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone (9CI) (CA INDEX NAME)

CM 1

CRN 664985-50-6
CMF C26 H34 N2 O2

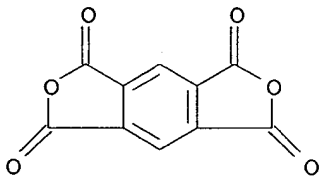
Relative stereochemistry.





CM 2

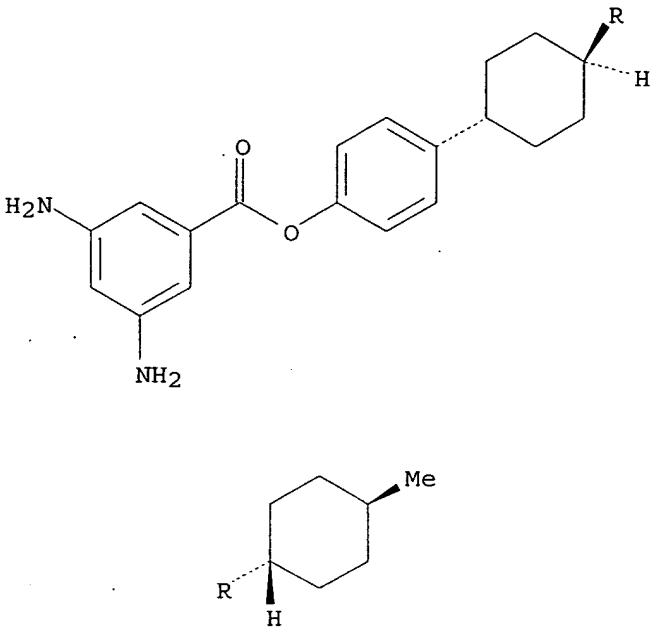
CRN 89-32-7
CMF C10 H2 O6



IT **664985-50-6P 664985-51-7P 664985-52-8P**
664985-53-9P
(manufacture of phenylenediamines bearing long side chains for polyamic acid, polyamides, polyimides, polyamide-polyimides as alignment films for liquid crystal displays)

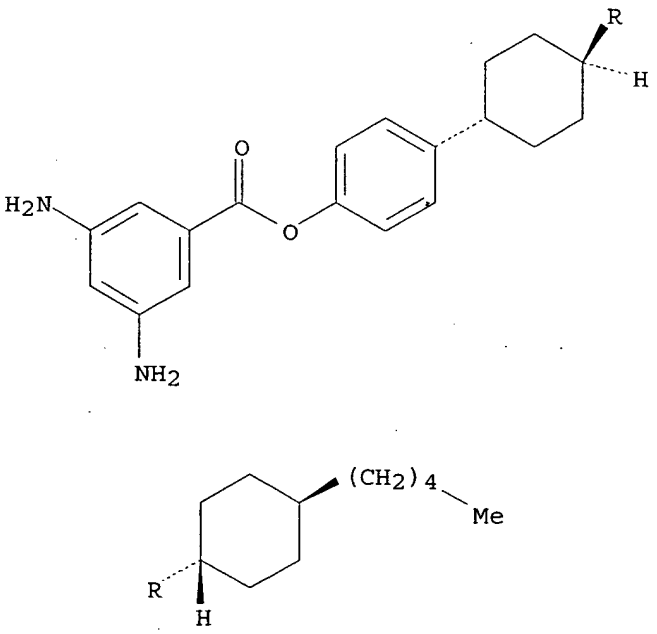
RN 664985-50-6 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4-[(trans,trans)-4'-methyl[1,1'-bicyclohexyl]-4-yl]phenyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.



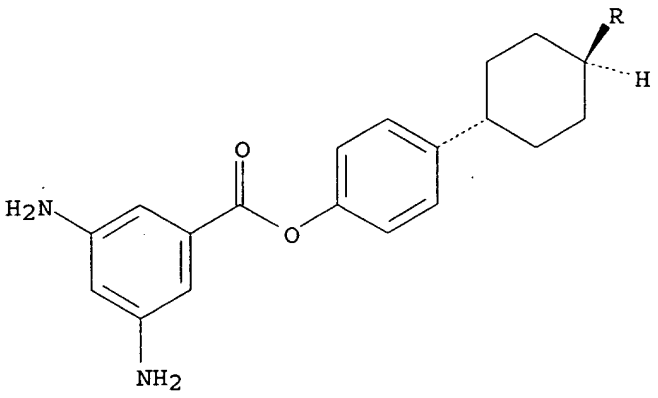
RN 664985-51-7 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4-[(trans,trans)-4'-pentyl[1,1'-bicyclohexyl]-4-yl]phenyl ester (9CI) (CA INDEX NAME)

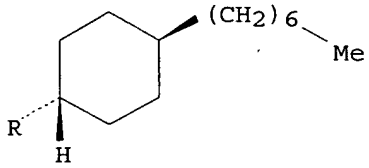
Relative stereochemistry.



RN 664985-52-8 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4-[(trans,trans)-4'-heptyl[1,1'-bicyclohexyl]-4-yl]phenyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

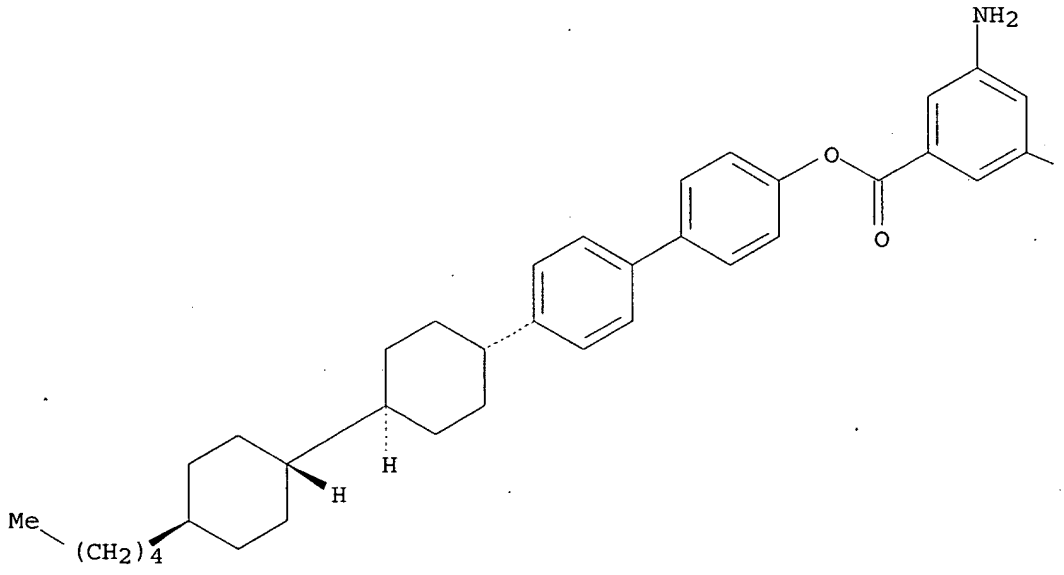




RN 664985-53-9 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4'-[(trans,trans)-4'-pentyl[1,1'-bicyclohexyl]-4-yl][1,1'-biphenyl]-4-yl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A



NH_2

IC ICM C07C229-60
ICS C08G069-26; C08G073-10; C08G073-14; G02F001-13; G02F001-1337
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25, 35, 38
IT 74-88-4DP, Methyl iodide, reaction product with polyamide
664985-55-1DP, reaction product with Me iodide
664985-55-1P 664985-56-2P 664985-57-3P
664985-58-4P 664985-59-5P 664985-60-8P
664985-61-9P 664985-62-0P
(manufacture of phenylenediamines bearing long side chains for polyamic acid, polyamides, polyimides, polyamide-polyimides as alignment films for liquid crystal displays)
IT **664985-54-0P**
(manufacture of phenylenediamines bearing long side chains for polyamic acid, polyamides, polyimides, polyamide-polyimides as alignment films for liquid crystal displays)
IT 182315-97-5P **664985-50-6P 664985-51-7P**
664985-52-8P 664985-53-9P 666722-84-5P
(manufacture of phenylenediamines bearing long side chains for polyamic acid, polyamides, polyimides, polyamide-polyimides as alignment films for liquid crystal displays)

L38 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:76765 HCAPLUS
DOCUMENT NUMBER: 140:154558
TITLE: Liquid crystal-aligning agent for liquid crystal display device
INVENTOR(S): Shimizu, Shigeo; Ota, Yoshihisa
PATENT ASSIGNEE(S): JSR Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 63 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004027201	A2	20040129	JP 2003-113959	2003 0418
NL 1023305	A1	20031031	NL 2003-1023305	2003 0429
NL 1023305	C2	20050623		
US 2004031950	A1	20040219	US 2003-424728	

			2003 0429
PRIORITY APPLN. INFO.:	JP 2002-128209	A	2002 0430
	JP 2003-113959	A	2003 0418

AB The title agent contains polymers of polyamic acids and of imide derived from polyamic acids, wherein the polymer contains substituted or non-substituted biphenyl, naphthyl, phenanthrenyl, dibenzofuranyl, and anthracenyl groups, and has main chain of C≥8, C≥3 perfluoroalkyl, C≥61,1-cycloalkylene, or ≥3 ring of polycyclic group, -R-X-A group(R = C≥3 hydrocarbon; X = single bond, -O-, -CO-, etc.; A = halo, cyano, fluoroalkyl, etc.), or -R1-X1-R2-X2-R3(R1-3 = C≥3 hydrocarbon, -(SiO)n-,; n≥5; X1-2 = single bond, -O-, -CO-, etc.). The agent provides good liquid crystal alignment such as elimination of a ghost image of liquid crystal displays.

IT **652140-53-9P 652140-62-0P 652140-65-3P 652141-31-6P 652141-34-9P 652141-35-0P**
(liquid crystal-aligning agent for liquid crystal display device)

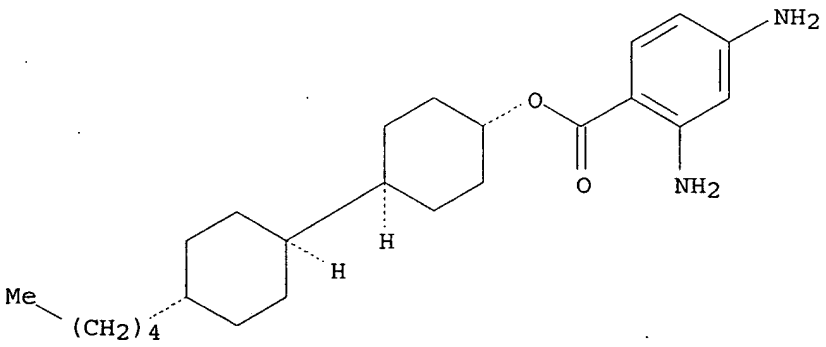
RN 652140-53-9 HCAPLUS

CN Benzoic acid, 2,4-diamino-, (trans,trans)-4'-pentyl[1,1'-bicyclohexyl]-4-yl ester, polymer with 2,2'-dimethyl[1,1'-biphenyl]-4,4'-diamine and hexahydro-1H,3H-furo[3',4':3,4]cyclopenta[1,2-c]pyran-1,3,5,7-tetrone (9CI) (CA INDEX NAME)

CM 1

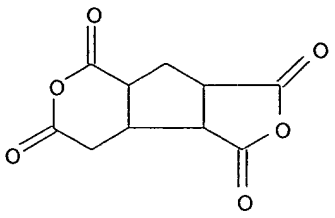
CRN 652140-52-8
CMF C24 H38 N2 O2

Relative stereochemistry.



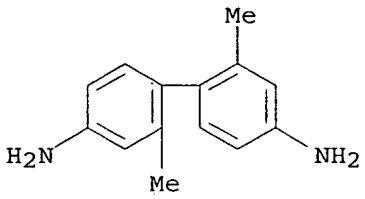
CM 2

CRN 87078-75-9
CMF C10 H8 O6



CM 3

CRN 84-67-3
CMF C14 H16 N2

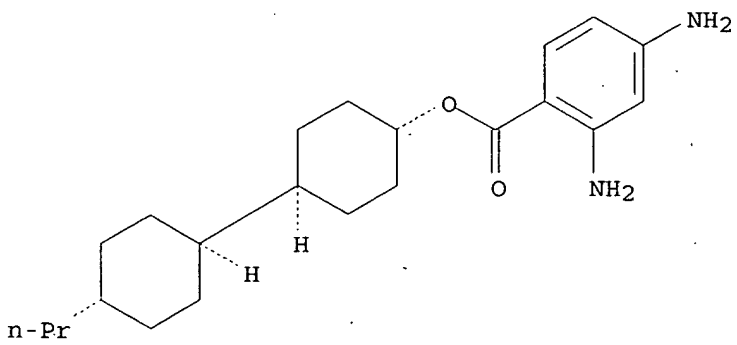


RN 652140-62-0 HCAPLUS
CN Benzoic acid, 2,4-diamino-, (trans,trans)-4'-propyl[1,1'-bicyclohexyl]-4-yl ester, polymer with 2,2'-dimethyl[1,1'-biphenyl]-4,4'-diamine and hexahydro-1H,3H-furo[3',4':3,4]cyclopenta[1,2-c]pyran-1,3,5,7-tetrone (9CI) (CA INDEX NAME)

CM 1

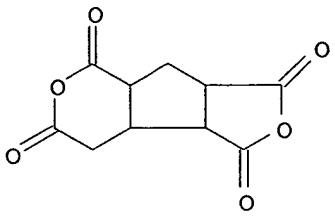
CRN 652140-61-9
CMF C22 H34 N2 O2

Relative stereochemistry.



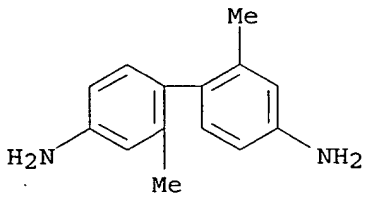
CM 2

CRN 87078-75-9
CMF C10 H8 O6



CM 3

CRN 84-67-3
CMF C14 H16 N2

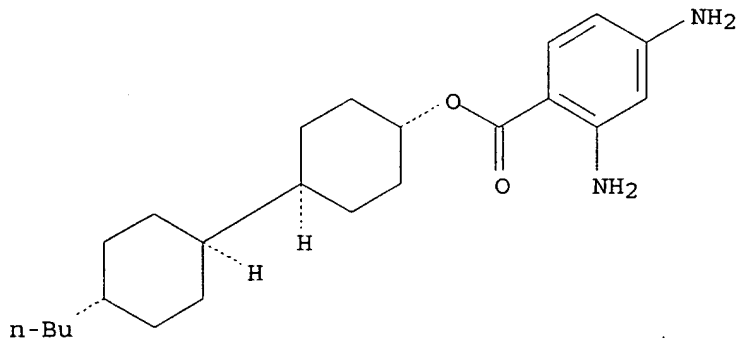


RN 652140-65-3 HCAPLUS
CN Benzoic acid, 2,4-diamino-, (trans,trans)-4'-butyl[1,1'-bicyclohexyl]-4-yl ester, polymer with 2,2'-dimethyl[1,1'-biphenyl]-4,4'-diamine and hexahydro-1H,3H-furo[3',4':3,4]cyclopenta[1,2-c]pyran-1,3,5,7-tetrone (9CI) (CA INDEX NAME)

CM 1

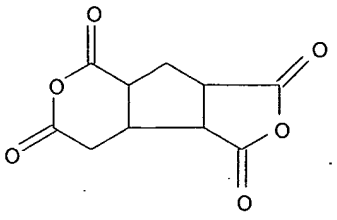
CRN 652140-64-2
CMF C23 H36 N2 O2

Relative stereochemistry.



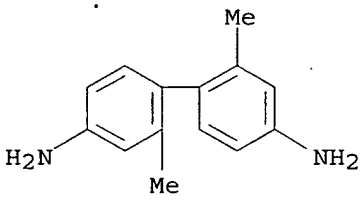
CM 2

CRN 87078-75-9
CMF C10 H8 O6



CM 3

CRN 84-67-3
CMF C14 H16 N2

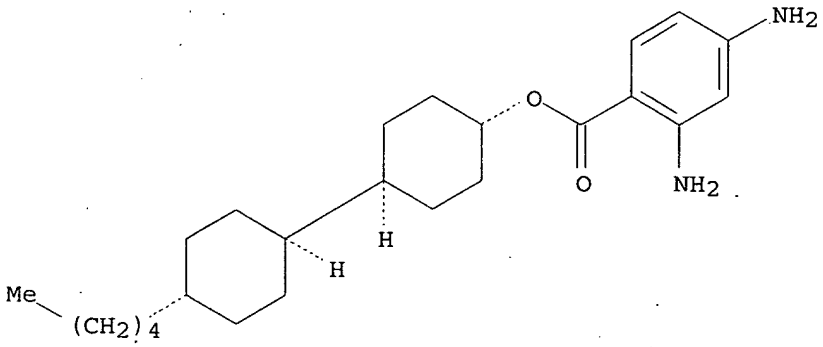


RN 652141-31-6 HCAPLUS
CN Benzoic acid, 2,4-diamino-, (trans,trans)-4'-pentyl[1,1'-bicyclohexyl]-4-yl ester, polymer with hexahydro-1H,3H-furo[3',4':3,4]cyclopenta[1,2-c]pyran-1,3,5,7-tetrone and 2,7-phenanthrenediamine (9CI) (CA INDEX NAME)

CM 1

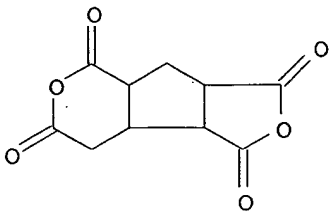
CRN 652140-52-8
CMF C24 H38 N2 O2

Relative stereochemistry.



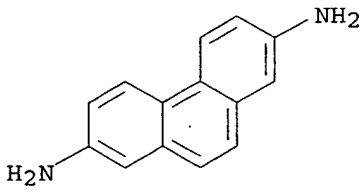
CM 2

CRN 87078-75-9
CMF C10 H8 O6



CM 3

CRN 62245-46-9
CMF C14 H12 N2

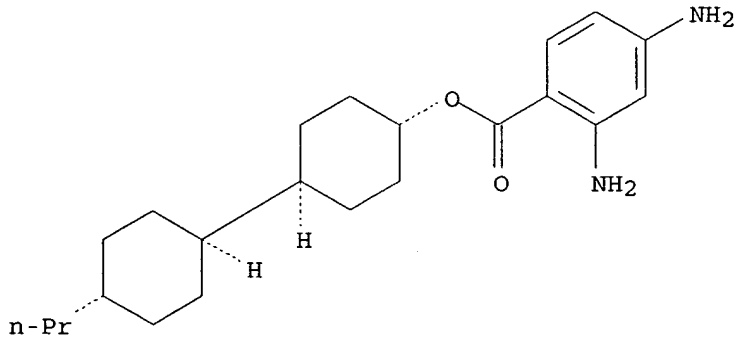


RN 652141-34-9 HCAPLUS
CN Benzoic acid, 2,4-diamino-, (trans,trans)-4'-propyl[1,1'-bicyclohexyl]-4-yl ester, polymer with hexahydro-1H,3H-furo[3',4':3,4]cyclopenta[1,2-c]pyran-1,3,5,7-tetrone and 2,7-phenanthrenediamine (9CI) (CA INDEX NAME)

CM 1

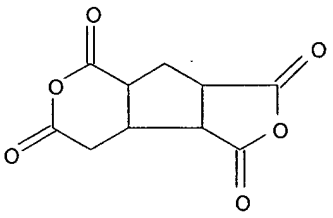
CRN 652140-61-9
CMF C22 H34 N2 O2

Relative stereochemistry.



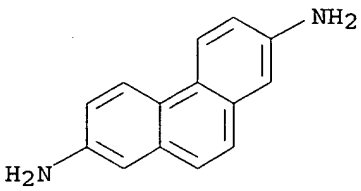
CM 2

CRN 87078-75-9
CMF C10 H8 O6



CM 3

CRN 62245-46-9
CMF C14 H12 N2

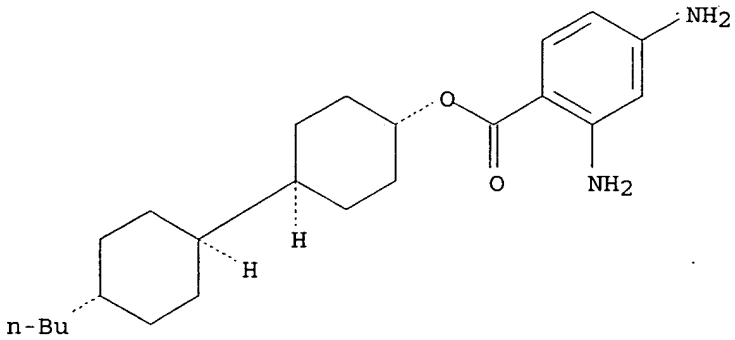


RN 652141-35-0 HCAPLUS
CN Benzoic acid, 2,4-diamino-, (trans,trans)-4'-butyl[1,1'-bicyclohexyl]-4-yl ester, polymer with hexahydro-1H,3H-furo[3',4':3,4]cyclopenta[1,2-c]pyran-1,3,5,7-tetrone and 2,7-phenanthrenediamine (9CI) (CA INDEX NAME)

CM 1

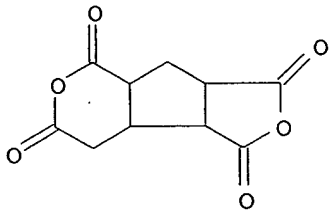
CRN 652140-64-2
CMF C23 H36 N2 O2

Relative stereochemistry.



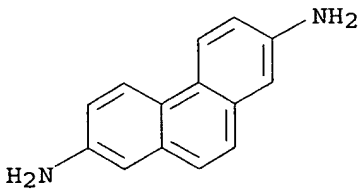
CM 2

CRN 87078-75-9
CMF C10 H8 O6



CM 3

CRN 62245-46-9
CMF C14 H12 N2



IC ICM C08G073-10
ICS G02F001-1337

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35

IT 652139-03-2P 652139-04-3P 652139-05-4P 652139-07-6P
652139-08-7P 652139-09-8P 652139-10-1P 652139-11-2P
652139-12-3P 652139-13-4P 652139-14-5P 652139-15-6P
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652141-29-2P 652141-30-5P **652141-31-6P** 652141-32-7P
652141-33-8P **652141-34-9P 652141-35-0P**
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652141-52-1P 652141-53-2P 652141-54-3P 652141-55-4P
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652141-72-5P 652141-73-6P 652141-74-7P 652145-54-5P
652145-56-7P
(liquid crystal-aligning agent for liquid crystal display device)

L38 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:257864 HCAPLUS
DOCUMENT NUMBER: 138:295000
TITLE: Phenylenediamine derivative, liquid crystal alignment layer from it, and display element containing it
INVENTOR(S): Tamura, Norihisa
PATENT ASSIGNEE(S): Chisso Corp., Japan; Chisso Petrochemical Corporation
SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003096034	A2	20030403	JP 2001-296750	2001 0927

PRIORITY APPLN. INFO.: JP 2001-296750 2001 0927

OTHER SOURCE(S): MARPAT 138:295000
AB The alignment layer is manufactured with a varnish containing polyamic acid, polyimide, polyamide, and/or polyamide-polyimide manufactured using (H2N)2C6H3ZYB1A1B2A2B3A3R [Z = CH2, CHF, CF2, CH2CH2, CF2O; Y = 1,4-cyclohexylene, (F- or Me-substituted) 1,4-phenylene; A1-A3 = single bond, any group given for Y; B1-B3 = single bond, C1-4 alkylene, O, C1-3 oxyalkylene, C1-3 alkyleneoxy; R = H, C1-10 (fluoro)alkyl, C1-9 (fluoro)alkoxy, alkoxyalkyl]. The layer shows

pretilt angle of a few degrees to 90° and resistance to rubbing or washing.

IT **504431-06-5P**, 1,2-Bis(4,4'-diaminophenyl)ethane-4-[4-(4-n-pentylcyclohexyl)cyclohexyl-2,6-difluorophenyl]oxydifluoromethyl-1,3-phenylenediamine-pyromellitic anhydride copolymer
(alignment layer; phenylenediamine derivative as monomer for alignment layer for liquid crystal displays)

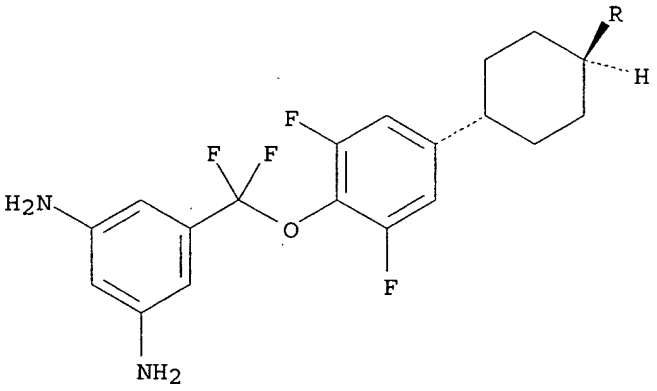
RN 504431-06-5 HCAPLUS

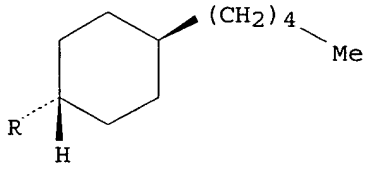
CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with 5-[[2,6-difluoro-4-[(trans,trans)-4'-pentyl[1,1'-bicyclohexyl]-4-yl]phenoxy]difluoromethyl]-1,3-benzenediamine and 4,4'-(1,2-ethanediyl)bis[benzenamine] (9CI) (CA INDEX NAME)

CM 1

CRN 504430-86-8
CMF C30 H40 F4 N2 O

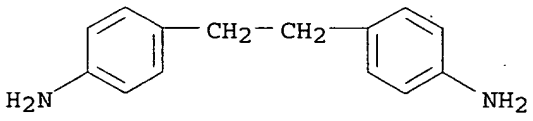
Relative stereochemistry.





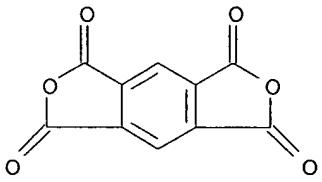
CM 2

CRN 621-95-4
CMF C14 H16 N2



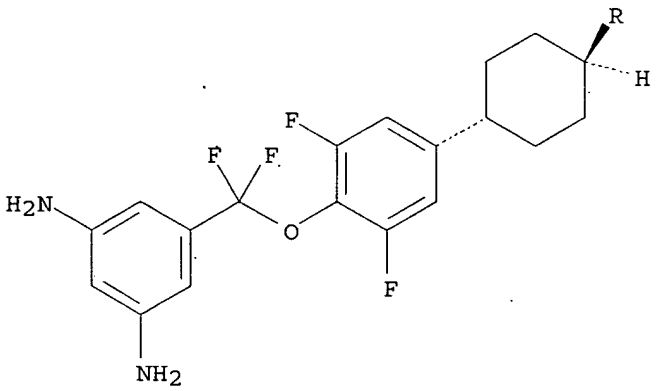
CM 3

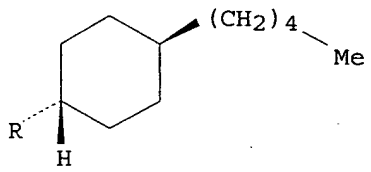
CRN 89-32-7
CMF C10 H2 O6



IT **504430-86-8P**
(phenylenediamine derivative as monomer for alignment layer for liquid crystal displays)
RN 504430-86-8 HCAPLUS
CN 1,3-Benzenediamine, 5-[[2,6-difluoro-4-[(trans,trans)-4'-pentyl[1,1'-bicyclohexyl]-4-yl]phenoxy]difluoromethyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.





IC ICM C07C211-50
ICS C07C217-80; C08G069-00; C08G073-10; G02F001-1337
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25, 38
IT 504430-98-2P, 1,2-Bis(4,4'-diaminophenyl)ethane-3,5-diamino-4'-[4-(4-n-pentylcyclohexyl)cyclohexyl]diphenyldifluoromethane-pyromellitic anhydride copolymer 504430-99-3DP, methylated 504431-00-9P 504431-01-0P 504431-02-1P 504431-03-2P 504431-05-4P **504431-06-5P**, 1,2-Bis(4,4'-diaminophenyl)ethane-4-[4-(4-n-pentylcyclohexyl)cyclohexyl-2,6-difluorophenyl]oxydifluoromethyl-1,3-phenylenediamine-pyromellitic anhydride copolymer
(alignment layer; phenylenediamine derivative as monomer for

alignment layer for liquid crystal displays)

IT 504430-82-4P 504430-83-5P 504430-84-6P 504430-85-7P
504430-86-8P 504430-88-0P 504430-89-1P 504430-91-5P
504430-92-6P 504430-93-7P 504430-94-8P 504430-95-9P
504430-96-0P 504430-97-1P
(phenylenediamine derivative as monomer for alignment layer for liquid crystal displays)

L38 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:568208 HCAPLUS
DOCUMENT NUMBER: 127:221121
TITLE: Diaminobenzene derivatives, polyimides prepared therefrom, and alignment films for liquid crystal
INVENTOR(S): Nihira, Takayasu; Nawata, Hideyuki; Fukuro, Hiroyoshi
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

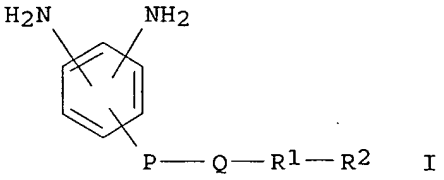
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9730107	A1	19970821	WO 1997-JP358	19970212
W: CN, KR, US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CN 1211263	A	19990317	CN 1997-192253	19970212
CN 1125809	B	20031029		
EP 905167	A1	19990331	EP 1997-902655	19970212
EP 905167	B1	20060201		
R: DE, FR, GB, IT, NL				
TW 494133	B	20020711	TW 1997-86101606	19970213
TW 236497	B1	20050721	TW 2001-90118523	19970213
JP 09278724	A2	19971028	JP 1997-30108	19970214
US 6111059	A	20000829	US 1998-125043	19980812
HK 1018905	A1	20040305	HK 1999-104029	19990917
CN 1388149	A	20030101	CN 2002-105157	20020221

PRIORITY APPLN. INFO.: JP 1996-28020 A 1996 0215

WO 1997-JP358 W 1997 0212

OTHER SOURCE(S): MARPAT 127:221121

GI



I

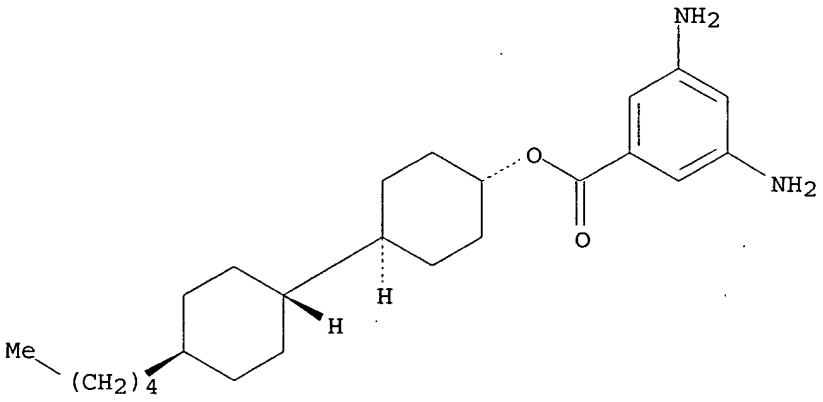
AB Diaminobenzene derivs. of general structure I (P = single bond, O, CO2, CONH; Q = aromatic ring, aliphatic ring, hetero ring; R1 = alicyclic group; R2 = C1-22 alkyl) are synthesized and polymerized with tetracarboxylic acid derivs., in particular 1,2,3,4-cyclobutanetetracarboxylic acid, to provide to form polyimide precursors having a reduced viscosity of 0.05-5.0 dL/g (as determined at 30° in N-methylpyrrolidone at a concentration of 0.5 g/dL). The precursors are subjected to ring-closing reaction to provide alignment films for liquid crystals.

IT **194939-27-0P 194939-35-0P 194939-37-2P**
(diaminobenzene derivs. for preparation of polyimides for liquid crystal alignment films)

RN 194939-27-0 HCAPLUS

CN Benzoic acid, 3,5-diamino-, 4'-pentyl[1,1'-bicyclohexyl]-4-yl ester, [trans(trans)]- (9CI) (CA INDEX NAME)

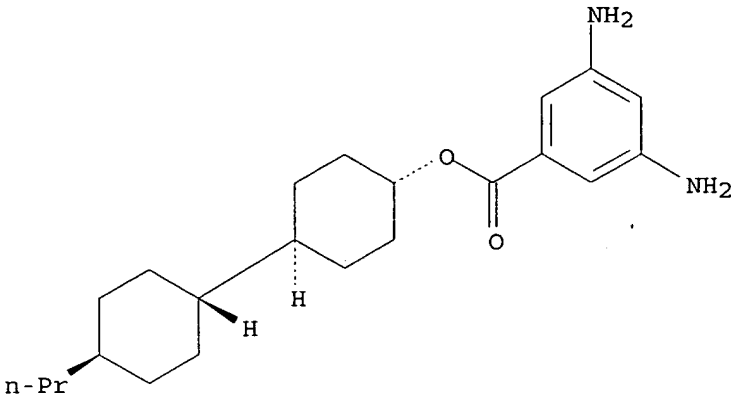
Relative stereochemistry.



RN 194939-35-0 HCAPLUS

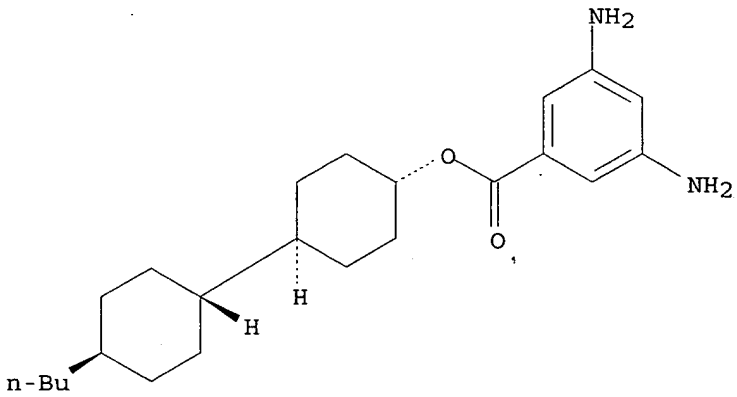
CN Benzoic acid, 3,5-diamino-, 4'-propyl[1,1'-bicyclohexyl]-4-yl ester, [trans(trans)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 194939-37-2 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4'-butyl[1,1'-bicyclohexyl]-4-yl ester, [trans(trans)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

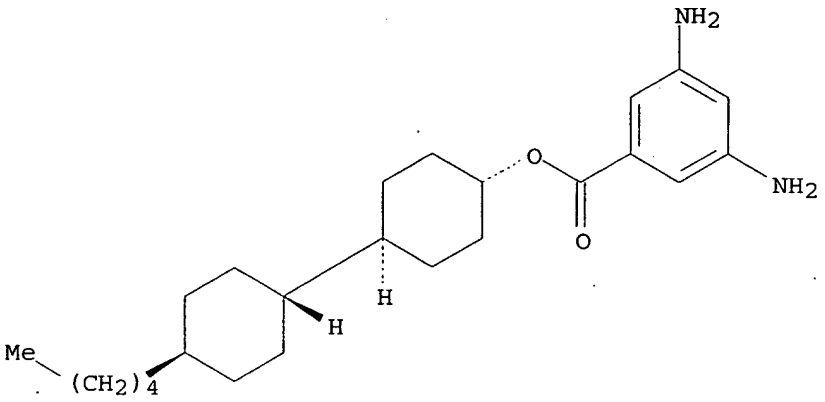


IT **194939-41-8P 194939-44-1P 194939-45-2P**
194939-48-5P
(polyimides prepared from diaminobenzene derivs. for liquid crystal alignment films)
RN 194939-41-8 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4'-pentyl[1,1'-bicyclohexyl]-4-yl ester, [trans(trans)]-, polymer with tetrahydro[3,3'-bifuran]-2,2',5,5'-tetrone (9CI) (CA INDEX NAME)

CM 1

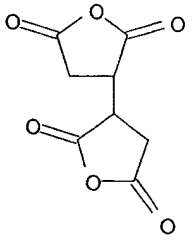
CRN 194939-27-0
CMF C24 H38 N2 O2

Relative stereochemistry.



CM 2

CRN 4534-73-0
CMF C8 H6 O6

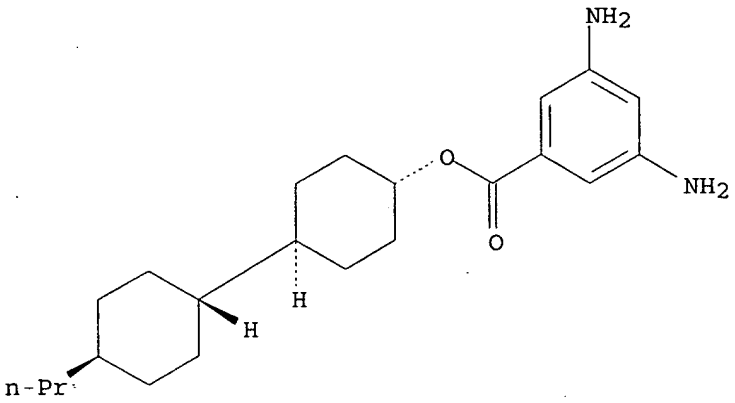


RN 194939-44-1 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4'-propyl[1,1'-bicyclohexyl]-4-yl ester, [trans(trans)]-, polymer with tetrahydro[3,3'-bifuran]-2,2',5,5'-tetrone (9CI) (CA INDEX NAME)

CM 1

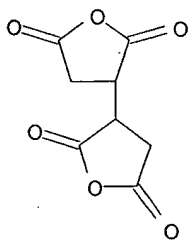
CRN 194939-35-0
CMF C22 H34 N2 O2

Relative stereochemistry.



CM 2

CRN 4534-73-0
CMF C8 H6 O6

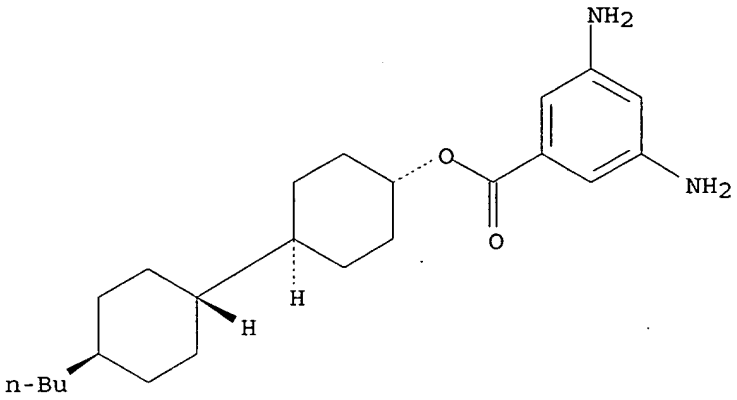


RN 194939-45-2 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4'-butyl[1,1'-bicyclohexyl]-4-yl ester, [trans(trans)]-, polymer with tetrahydro[3,3'-bifuran]-2,2',5,5'-tetrone (9CI) (CA INDEX NAME)

CM 1

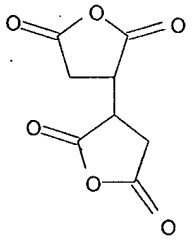
CRN 194939-37-2
CMF C23 H36 N2 O2

Relative stereochemistry.



CM 2

CRN 4534-73-0
CMF C8 H6 O6

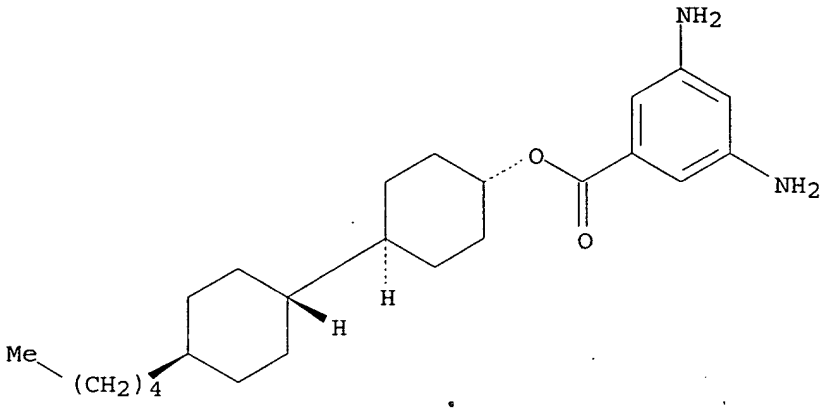


RN 194939-48-5 HCAPLUS
CN Benzoic acid, 3,5-diamino-, 4'-pentyl[1,1'-bicyclohexyl]-4-yl ester, [trans(trans)]-, polymer with 4,4'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[benzenamine] and tetrahydro[3,3'-bifuran]-2,2',5,5'-tetrone (9CI) (CA INDEX NAME)

CM 1

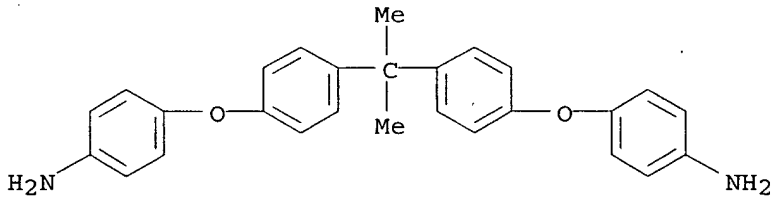
CRN 194939-27-0
CMF C24 H38 N2 O2

Relative stereochemistry.



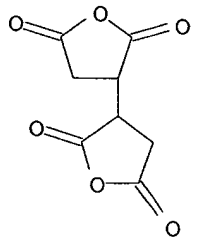
CM 2

CRN 13080-86-9
CMF C27 H26 N2 O2



CM 3

CRN 4534-73-0
CMF C8 H6 O6



IC ICM C08G073-10
ICS C07C217-76; C07C217-84; C07C219-32; C07C219-34; C07C237-32; C07C237-34; C07C237-36; C09K019-56; G02F001-1337
CC 35-2 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 25, 75
IT 194939-21-4P 194939-24-7P **194939-27-0P** 194939-30-5P 194939-33-8P **194939-35-0P** **194939-37-2P**
(diaminobenzene derivs. for preparation of polyimides for liquid crystal alignment films)

IT 194939-39-4P 194939-40-7P **194939-41-8P** 194939-42-9P
194939-43-0P **194939-44-1P** **194939-45-2P**
194939-46-3P 194939-47-4P **194939-48-5P**
(polyimides prepared from diaminobenzene derivs. for liquid crystal alignment films)

L38 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:245397 HCAPLUS
DOCUMENT NUMBER: 116:245397
TITLE: Liquid-crystal aligning-film composition
INVENTOR(S): Kanbe, Sadao; Aoki, Nobuo; Ebisawa, Makoto
PATENT ASSIGNEE(S): Seiko Epson Corp., Japan; Japan Carlit Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03179323	A2	19910805	JP 1989-329057	1989 1219
PRIORITY APPLN. INFO.:			JP 1988-320235	A1 1988 1219
			JP 1989-3243	A1 1989 0110
			JP 1989-25079	A1 1989 0203
			JP 1989-25080	A1 1989 0203
			JP 1989-150085	A1 1989 0613
			JP 1989-206550	A1 1989 0809
			JP 1989-208883	A1 1989 0811
			JP 1989-247564	A1 1989 0922

AB The title component contains a polyamic acid [NHCOR1(CO2H)2 CONHR2]n (R1 = aromatic or aliphatic ring; R2 = aromatic ring with side

chain having alkyl, alkoxyl, or halo, and/or cyclic substituent; n = integer). The film gives a high pretilt angle and is suited for use in supertwisted nematic liquid-crystal displays.

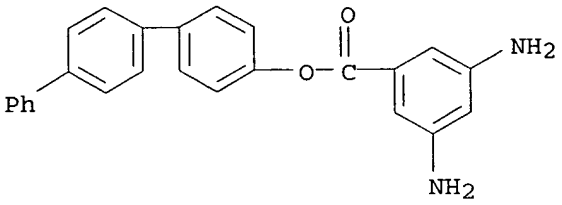
IT **141288-28-0**
(polyamic-acid aligning-film composition from, for liquid crystal display devices)

RN 141288-28-0 HCAPLUS

CN Benzoic acid, 3,5-diamino-, [1,1':4',1''-terphenyl]-4-yl ester, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone (9CI) (CA INDEX NAME)

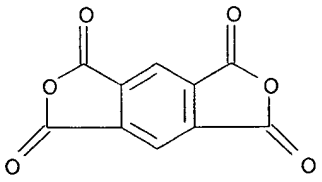
CM 1

CRN 141288-27-9
CMF C25 H20 N2 O2



CM 2

CRN 89-32-7
CMF C10 H2 O6



IC ICM G02F001-1337
ICS C08L079-08; C09K019-56

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT 9043-05-4 25038-81-7 31475-63-5 84502-42-1 84516-43-8
94034-73-8 94148-69-3 94148-77-3 134500-11-1 134873-58-8
134873-59-9 134873-62-4 135150-71-9 135150-85-5
135150-88-8 136919-64-7 136919-66-9 136919-73-8
136951-19-4 136951-29-6 136951-34-3 136951-51-4
136951-53-6 136951-64-9 136951-66-1 136951-68-3
136984-41-3 139890-22-5 141256-62-4 141288-24-6
141288-26-8 **141288-28-0** 141288-30-4 141288-32-6
141288-34-8 141288-36-0 141288-41-7 141288-42-8
141288-43-9 141288-45-1 141288-46-2 141288-48-4
141288-50-8 141288-51-9 141288-53-1 141288-55-3
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141288-69-9 141288-71-3 141288-72-4 141288-73-5

141288-75-7 141288-76-8 141288-78-0 141288-80-4
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141288-96-2 141441-05-6 141441-06-7 141441-07-8
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141441-58-9 141441-59-0 141441-60-3 141441-61-4
141441-62-5 141441-63-6 141441-64-7 141441-66-9
141441-68-1 142302-43-0
(polyamic-acid aligning-film composition from, for liquid crystal display devices)

L38 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:633188 HCAPLUS
DOCUMENT NUMBER: 115:233188
TITLE: Preparation of heat-resistant polyimides
INVENTOR(S): Aoki, Nobuo; Ebisawa, Makoto
PATENT ASSIGNEE(S): Japan Carlit Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
JP 03121132	A2	19910523	JP 1990-33713		19900216
PRIORITY APPLN. INFO.:			JP 1989-52914	A1	19890307
			JP 1989-126579	A1	19890522
			JP 1989-173066	A1	19890706

AB Polyimides having good film-forming properties and useful for liquid crystal orientation films are prepared by polycondensation of tetracarboxylic acids with aromatic diamines bearing cyclic substituent pendant groups. Thus, reacting 5.4 parts cyclohexyloxy-1,4-phenylenediamine with 4.4 parts 3,3',4,4'-biphenyltetracarboxylic acid dianhydride in 118 parts AcNMe2 at 20-30° for 24 h, coating the resulting solution on glass and heating at 250° for 1 h gave a film having

decomposition temperature 353°.

IT **136951-23-0P**

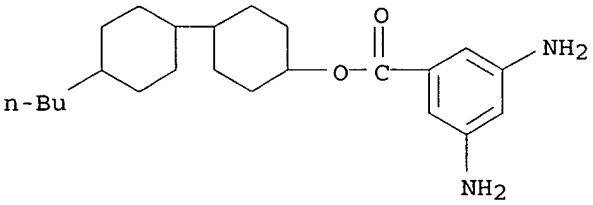
(preparation of, heat-resistant, for liquid crystal orientation films)

RN 136951-23-0 HCAPLUS

CN Benzoic acid, 3,5-diamino-, 4'-butyl[1,1'-bicyclohexyl]-4-yl ester, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone (9CI) (CA INDEX NAME)

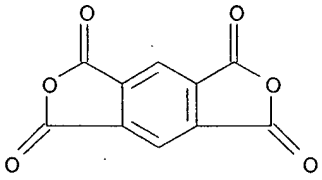
CM 1

CRN 136951-22-9
CMF C23 H36 N2 O2



CM 2

CRN 89-32-7
CMF C10 H2 O6



IC ICM C08G073-10

CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 75

IT 31587-10-7P 84515-77-5P 84516-43-8P 94148-69-3P
94148-77-3P 94217-85-3P 94217-86-4P 136919-37-4P
136919-40-9P 136919-41-0P 136919-42-1P 136919-43-2P
136919-44-3P 136919-45-4P 136919-46-5P 136919-47-6P
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136919-62-5P 136919-64-7P 136919-66-9P 136919-68-1P
136919-70-5P 136919-72-7P 136919-73-8P 136951-17-2P
136951-19-4P 136951-21-8P **136951-23-0P** 136951-25-2P
136951-27-4P 136951-29-6P 136951-31-0P 136951-32-1P
136951-34-3P 136951-36-5P 136951-38-7P 136951-40-1P
136951-42-3P 136951-44-5P 136951-46-7P 136951-48-9P
136951-49-0P 136951-51-4P 136951-53-6P 136951-55-8P
136951-57-0P 136951-58-1P 136951-60-5P 136951-62-7P
136951-64-9P 136951-66-1P 136951-68-3P 136958-30-0P
136958-31-1P 136958-32-2P 136958-33-3P 136958-34-4P
136958-35-5P 136958-36-6P 136958-40-2P 136958-42-4P
136958-43-5P 136958-44-6P 136958-45-7P 136958-46-8P
136958-48-0P 136958-49-1P 136958-53-7P 136958-54-8P

136984-41-3P 137260-61-8P
(preparation of, heat-resistant, for liquid crystal orientation films)